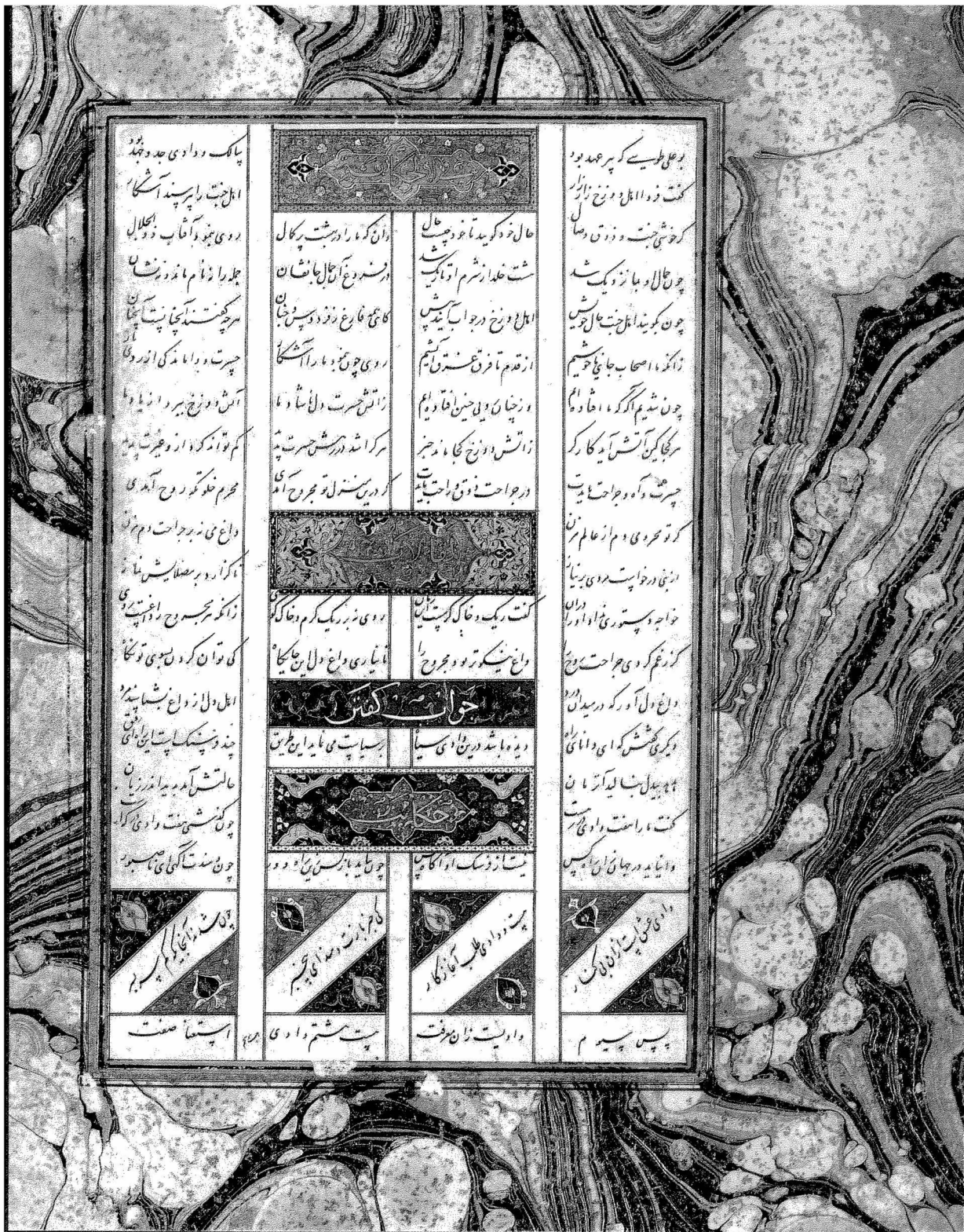




ISLAMIC CALLIGRAPHY

SHEILA S. BLAIR

'Sheila S. Blair is a seasoned author with an excellent track record in publishing both specialized and general books on Islamic art. Indeed she is an undisputed star in her field.'

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SHEILA S. BLAIR

This stunning book is an important contribution to a key area of non-western art, being the first reference work on the art of beautiful writing in Arabic script.

The extensive use of writing is a hallmark of Islamic civilization. Calligraphy, the art of beautiful writing, became one of the main methods of artistic expression from the seventh century to the present in almost all regions from the far Maghrib, or Islamic West, to India and beyond. Arabic script was adopted for other languages from Persian and Turkish to Kanembu and Malay. Sheila Blair's groundbreaking book explains this art form to modern readers and shows them how to identify, understand and appreciate its varied styles and modes. The book is designed to offer a standardized terminology for identifying and describing various styles of Islamic calligraphy and to help Westerners appreciate why calligraphy has long been so important in Islamic civilization.

The argument is enhanced by the inclusion of more than 150 colour illustrations, as well as over 100 black-and-white details that highlight the salient features of the individual scripts and hands. Examples are chosen from dated or datable examples with secure provenance, for the problem of forgeries and copies (both medieval and modern) is rampant. The illustrations are accompanied by detailed analyses telling the reader what to look for in determining both style and quality of script.

This beautiful new book is an ideal reference for anyone with an interest in Islamic art.



SHEILA S. BLAIR is the Norma Jean Calderwood University Professor of Islamic and Asian Art at Boston College. She is author of the prize-winning *Islamic Inscriptions* (Edinburgh University Press, 1998) and *A Compendium of Chronicles: Rashid al-Din's Illustrated History of the World* (1995). She is co-author of *Islam: A Thousand Years of Faith and Power* (2000), *Islamic Arts* (1997) and *The Art and Architecture of Islam 1250-1800* (1994).

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Front cover image: Page from a manuscript of Farid al-Din 'Attar's *Mantiq al-Tayr* with twenty-two lines per page transcribed by Sultan 'Ali Mashhadi at Herat and finished on 1 Jumada I 892/25 April 1487. 39 x 20 cm. The Metropolitan Museum of Art, Fletcher Fund, 1963. (63.210.47). Photograph © 1992 The Metropolitan Museum of Art.

Illustration by Barrie Tiller

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Sheila S. Blair

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Abbreviations

BL	British Library, London
BM	British Museum, London
BN	Bibliothèque Nationale, Paris
CBL	Chester Beatty Library, Dublin
DK	Dar al-kutub, Cairo
<i>DoA</i>	<i>Dictionary of Art</i>
<i>Elr</i>	<i>Encyclopaedia Iranica</i>
<i>El2</i>	<i>Encyclopaedia of Islam</i> , 2nd edn
<i>EQ</i>	<i>Encyclopaedia of the Qur'an</i>
FGA	Freer Gallery of Art, Washington DC
INM	Iranian National Museum, Tehran
IUL	Istanbul University Library
LACMA	Los Angeles Country Museum of Art
MMA	Metropolitan Museum of Art, New York
RAS	Royal Asiatic Society, London
<i>RCEA</i>	<i>Répertoire chronologique d'épigraphie arabe</i>
TIEM	Türk ve İslam Eserleri Museum, Istanbul
TKS	Topkapı Saray Museum, Istanbul

Glossary

<i>abjad</i>	term derived from the first four letters of Arabic script (<i>alif</i> , <i>ba'</i> , <i>jim</i> , and <i>dal</i>) in their traditional order and used to designate either (1) a type of writing system that denotes only consonants (Arabic is the most widespread of these systems), or (2) the alphanumeric system of numbering in which the letters correspond to numerical values; <i>alif</i> , for example, is equivalent to one, <i>ba'</i> to two, etc.
<i>ajzā'</i>	plural of <i>juz'</i>
<i>al-tamgha</i>	royal seal, used in the Mongol period in Iran
<i>asbā'</i>	plural of <i>sub'</i>
<i>ash'ār</i>	literally, hairs or hair-strokes; used for a type of script used in the Mamluk period that is (1) outlined in thin hair-like strokes of a different color and/or (2) a variant of large <i>muḥaqqaq</i> but with shorter and deeper descenders
aspect	overall appearance of a hand
<i>celi</i>	Turkish form of the Arabic <i>jali</i>
colophon	inscription at the end of a written work containing some or all of the following information: name of the work, author, scribe, date, and place of writing
<i>daqīq</i>	fine or small, the opposite of <i>jali</i>
display script	script or style of script used to differentiate parts of a text, such as headings or chapters
<i>dīvānī</i>	literally, belonging to the imperial chancery; the type of hanging, unvocalized script developed from <i>ta'liq</i> by scribes in the Ottoman chancery and used for official documents; the developed form with vocalization, reading signs, and decoration is called <i>jali divani</i> (Turkish <i>celi divani</i>)
<i>ghubār</i>	literally, dust; either (1) a tiny round script used in later periods in both Iran and the Arab world, or (2) a tiny variant of any of the Six Pens popular in Iran
<i>gulzār</i>	literally, rose garden or full of flowers; a decorative script used in Iran in later centuries in which the individual letters, usually written in <i>nasta'liq</i> , are decorated with or composed of flowers
hand	individual's execution of a particular script or style
<i>hibr</i>	brown ink
<i>ḥijāzī</i>	literally, from the Hejaz, the coastal region of north-west Arabia where both Mecca and Medina lie; a name applied to the angular script used in some early manuscripts of the Koran
<i>ḥilya</i>	literally, adornment; term used for a description of the Prophet Muhammad and for a particular kind of arrangement containing this text
<i>hizb</i>	section [of the Koran], one-sixtieth of the text
<i>icâza</i>	Turkish form of the Arabic <i>ijaza</i>

<i>ijāza</i>	license, particularly the license granted by a master calligrapher to his pupil showing that he had mastered the scripts; the Turkish form is <i>icāza</i>
<i>istif</i>	pl. <i>istiflar</i> ; literally, arrangement; Turkish term for a large calligraphic composition, often with superimposed or interlaced letters
<i>jalī</i>	literally, clear, plain, evident and applied literally as in <i>jali divani</i> or metaphorically to a large and bold variety of one of the Six Pens, especially <i>muhaqqaq</i> or <i>thuluth</i> ; the Turkish form is <i>celi</i>
<i>jalīl</i>	large, the opposite of <i>daqiq</i>
<i>jung</i>	literally, ship; the Persian term for album
<i>juz'</i>	pl. <i>ajzā'</i> ; section [of the Koran], usually one-thirtieth of the text. The text is divided this way in order to finish a complete reading during the thirty days of the sacred month of Ramadan
<i>kalıp</i>	Turkish form of <i>qalib</i>
<i>kātib</i>	scribe
<i>khattāt</i>	calligrapher
<i>kūfī/kufic</i>	literally, from Kufa, a garrison city in southern Iraq founded in 638 CE and one of the intellectual centers in early Islamic times; a general term used to refer to the angular scripts used for early copies of the Koran
<i>lawḥ</i>	writing tablet or board, still used in Africa by students learning to write the Koranic text
<i>levha</i>	pl. <i>levhalar</i> ; Turkish for signboard and the term used for a panel, typically inscribed in large <i>thuluth</i> , suitable for framing and hanging on the wall
<i>lu'lu'ī</i>	literally, pearly; a small and compact type of <i>thuluth</i> with shorter vertical and flat strokes used in the Mamluk period
<i>mā'il</i>	literally, leaning; a misnomer mistakenly applied to the angular script used in some early manuscripts of the Koran
<i>maṣāḥif</i>	(1) codices [of the Koran], the plural of <i>maṣḥaf</i> ; (2) the name used by the Mamluk chronicler al-Tayyibi for a script resembling medium-sized <i>muhaqqaq</i> (<i>khafif al-muhaqqaq</i>)
<i>maṣḥaf</i>	also <i>muṣḥaf</i> ; pl. <i>maṣāḥif</i> ; codex, commonly used for a manuscript of the Koran
<i>mashq</i>	from the verb <i>mashaqa</i> , to extend or elongate; elongation, particularly of the form of an individual letter like <i>kaf</i> ; also for a rough copy or for the exemplar that is transcribed by the master and copied by his student
<i>mastar(a)</i>	also <i>miṣṭara</i> , a set of strings stretched over a pasteboard frame; rubbing the paper over a <i>mastar</i> creates indentations or raised lines which provide a baseline for the calligrapher to transcribe his text
<i>midād</i>	black ink
<i>mise-en-page</i>	layout of a page
<i>mufrada</i>	a calligraphic exercise in which the letters of the Arabic alphabet are written in sequence as an exemplar
<i>müfredat</i>	Turkish form of <i>mufrada</i>
<i>muhakkak</i>	Turkish form of the Arabic <i>muhaqqaq</i>
<i>muḥaqqaq</i>	literally, exact either (1) having the individual letters executed perfectly; in this sense the opposite of <i>mutlaq</i> ; or (2) one of the scripts known as the Six Pens, characterized by stately proportions and elegance, the Koranic script <i>par excellence</i> in the later periods
<i>muhmala</i>	unpointed (literally, loose or free) letters like <i>ha'</i> , <i>sad</i> and <i>'ayn</i> that are often written with the smaller form of the letter beneath them to distinguish them from pointed

	(<i>muḥama</i> , literally, bolted or fastened) letters, other homographs, or versions of the same form, that have diacritical marks, such as <i>khaʾjim</i> , <i>dad</i> , or <i>ghayn</i>
<i>munshī</i>	correspondence secretary or chancery scribe who was in charge of official letters and correspondence (<i>inshaʾ</i>)
<i>muqābala</i>	proofreading or collation, comparison of the text against the original
<i>murakkabāt</i>	literally, compounds or assemblages; calligraphic exercises with words or phrases, often poems or sayings from the Prophet; the second stage of the traditional Ottoman system of calligraphic training, these exercises are often appended at the end of the alphabetic exercises (<i>mufrada</i>)
<i>muraqqaʿ</i>	literally, patchwork; Arabic term for album, often one with calligraphic specimens and paintings
<i>muratṭaba</i>	literally, wet; figurally rounded or plump; used for scripts such as <i>thuluth</i> ; the opposite of <i>yabis</i>
<i>mürekkabat</i>	Turkish for <i>murakkabat</i>
<i>musalsal</i>	literally, chained or interlocked; an intertwined script in which all the letters are interlocked and the <i>alif-lam</i> combination resembles links in a chain. It was often used in the Mamluk and Ottoman times, particularly for architectural compositions and frontispieces
<i>muselsel</i>	Turkish form of the Arabic <i>musalsal</i>
<i>muthannā</i>	literally, doubled; term used for mirror writing in which the left half of the composition repeats in mirror reverse what is written on the right
<i>muṭlaq</i>	literally unrestrained, i.e., allowing letters to be assimilated and interlaced; the opposition of <i>muhaqqaq</i>
<i>naqqāsh</i>	literally, painter or artist; figuratively designer; used in the Iranian lands since the fourteenth century for a calligrapher who designed inscriptions
<i>naskh</i>	literally, copying, transcription; the most common script of the Six Pens, used for regular transcription
<i>nastaʿlīq</i>	from the Persian <i>naskh-i taʿlīq</i> (literally, hanging or suspended <i>naskh</i>), a curvilinear and sloping script that developed from <i>naskh</i> beginning in the thirteenth century to become the premier script for transcribing Persian and Turkish verses and poetic manuscripts in later times; it was rarely used for Arabic; in Turkey it was called <i>taʿlīk</i>
<i>nesih</i>	Turkish form of the Arabic <i>naskh</i>
papyrus	a writing support made from fresh-water reeds
parchment	a writing support made from the skin of various animals; known in Arabic as <i>raqq</i> , <i>riqq</i> or <i>jild</i>
protocol	the heading written on an extra, heavier sheet attached to the beginning of a roll of papyrus
<i>qalam</i>	reed pen, the standard writing implement in the Islamic lands
<i>qālīb</i>	pricked drawing used in later times for producing large-scale calligraphy and inscriptions; the Turkish form is <i>kalıp</i>
<i>qitʿa</i>	from the Arabic <i>qataʿa</i> , to cut or cut up; either (1) generally, a calligraphic exercise or specimen, or (2) more specifically, one that is cut out from another sheet
<i>rabʿa</i>	term used to designate a multi-volume manuscript of the Koran (pl. <i>rabʿāt</i>) or the container or box in which it is held
<i>rayḥān</i>	literally, sweet basil; one of the six scripts codified by Yaquṭ, it was usually considered the minuscule counterpart of the majuscule <i>muhaqqaq</i>
<i>rikaʿ</i>	Turkish form of <i>riqaʿ</i>

<i>riqāʿ</i>	literally, pieces of writing material; a curvilinear script that was one of the Six Pens; it was often considered the smaller counterpart of <i>tawqīʿ</i>
<i>safīna</i>	literally, a boat; metaphorically a small book stitched together at the narrow end; used also for the format of Ottoman documents written in <i>celi divani</i> , in which the writing is set in ship-shaped cartouches; the Turkish form is <i>sefīna</i>
script	system or style of writing
<i>sefīna</i>	Turkish form of the Arabic <i>safīna</i>
<i>subʿ</i>	pl. <i>asbāʿ</i> ; literally, a seventh, a section of a Koran manuscript designed to be read in one week
<i>sülüs</i>	Turkish form of the Arabic <i>thuluth</i>
<i>taʿlīk</i>	Turkish form of the term <i>taʿlīq</i> (meaning suspended), but used under the Ottomans for the script known in Iran and elsewhere as <i>nastaʿlīq</i>
<i>taʿlīq</i>	literally, hanging or suspended, (1) a script developed in Iran by the thirteenth century and used for documents; it is characterized by numerous ligatures between letters; it was sometimes known as <i>taʿlīq-i qadīm</i> (old <i>taʿlīq</i>) or <i>taʿlīq-i asl</i> (original <i>taʿlīq</i>) to differentiate it from regular or broken (<i>shikasta</i>) <i>taʿlīq</i> ; when this script was adopted in Anatolia, Ottoman calligraphers developed their own style known as <i>divani</i> ; (2) a misnomer adopted in Ottoman times for the hanging script known in Iran and elsewhere as <i>nastaʿlīq</i>
<i>ṭams</i>	literally, effacement; filling in or blackening the loops of the letters
<i>taqlīd</i>	copying; used to refer to the classical system used to train calligraphers in Ottoman times, in which a student learned by copying the works of a master
<i>tarwīs</i>	the serif or hook at the beginning of a stroke
<i>tashʿira</i>	hairlines used to connect regularly unconnected letters in <i>tawqīʿ</i>
<i>tawkiʿ</i>	Turkish form of the Arabic <i>tawqīʿ</i>
<i>tawqīʿ</i>	also known in the plural <i>tawqīʿāt</i> or <i>tawāqīʿ</i> ; literally, signature; one of the Six Pens, this curvilinear script is marked by its connection of regularly unconnected letters; its smaller counterpart is <i>riqāʿ</i>
<i>thuluth</i>	literally, one-third, one of the Six Pens, typically marked by large size and rounded endings and regularly used for architectural inscriptions. The Turkish form is called <i>sülüs</i>
<i>tughra</i>	heading; the personal emblem of a sultan
<i>ṭumār</i>	literally, scroll; either (1) the largest of all the scripts; although usually considered a rectilinear script, it could be written according to the rules of either <i>muhaqqaq</i> or the curvilinear <i>thuluth</i> or (2) a larger variant of any of the Six Pens; in this sense, the opposite of <i>ghubār</i>
<i>waqf</i>	pious endowment; many fine manuscripts were made for and/or given to charitable foundations as a pious endowment
<i>waqfiyya</i>	the notice of a pious endowment, giving a <i>terminus ad quem</i> for a manuscript
<i>warraq</i>	leaf or page
<i>warrāq</i>	copyist or bookseller
<i>yābis</i>	literally, dry; figuratively sharp-edged, used to refer to scripts such as <i>muhaqqaq</i> ; the opposite of <i>murattaba</i>
<i>zammaka</i>	to outline the letters of one script in another color; the noun is <i>tazmīk</i>

Preface

This book is both an introduction to and a survey of Islamic calligraphy. What does this title mean? The English calligraphy derives via European languages from the Greek *kallos* (beauty) and *grafos* (writing, writer).¹ The *Oxford English Dictionary* gives two definitions for the English noun, both in use since the seventeenth century: (1) beautiful or fair writing as a product; also, elegant penmanship as an art or profession; and (2) handwriting, penmanship generally; style of handwriting or written characters; a person's characteristic handwriting or 'hand'.² The former is attested slightly earlier, in the third edition of an alphabetic table published in 1613, followed soon by the latter, in Milton's *Colasterion*, published in 1645. *Webster's Third International Dictionary* repeats the same definitions in the same historical order: (1) fair or elegant writing or penmanship; the art or profession of producing fair or elegant writing; and (2) handwriting, penmanship.³ The former definition is thus narrower, implying an aesthetic quality not inherent in the latter.

In its broadest sense, calligraphy is roughly equivalent to the Arabic noun *khatt*, defined in Edward Lane's *Arabic-English Lexicon* as line, streak, or stripe; track, path or road; and writing and the like.⁴ The Arabic *khatt* was traditionally bound with the notion of trace. Pre-Islamic poets such as Imru'l-Qays and Labid use the noun *khatt* to refer to the traces in the sand left by abandoned campsites, standard tropes in their *qasidas*, or odes, notably the ones in the collection known as the *Mu'allaqat*.⁵ Medieval Muslims were well aware of this imagery. They commissioned splendid manuscripts of such pre-Islamic verses from famous calligraphers like Ibn al-Bawwab (Figure 5.11). Ibn Faris (d. 1001), the medieval lexicographer who produced the most in-depth study of Arabic roots, defined *khatt* as the extended trace of a thing (*athar sha'y yamtaddu imtidadan*).⁶ This feeling of looking back or nostalgia for the past still reverberates in Arabic calligraphy today, which is often seen as the evocation of tradition.

The Arabic noun *khatt* also contains the idea of writing. Lane's immediate authority for his definition was *Taj al-'Arus*, the huge dictionary compiled in eighteenth-century Cairo by Muhammad Murtada al-Zabidi, himself a calligrapher.⁷ Lane added a gloss in brackets on the last meaning as handwriting, character; or particular form of letters. These various meanings of the word *khatt* are current in modern standard Arabic as well: Wehr's *Dictionary of Modern Written Arabic*, for example, defines *khatt* as line and stroke, stripe as well as handwriting; writing, script; calligraphy, penmanship.⁸ The meaning of *khatt* as writing is common, and the second edition of the *Encyclopaedia of Islam* devotes a long article to *khatt* as writing.⁹ The narrower definition of calligraphy, with its implicit assumption of a script's aesthetic qualities, is conveyed in Arabic by phrases such as *al-khatt al-badi'* or *al-khatt al-jamil* (beautiful writing).¹⁰

This book follows the more restricted definition of calligraphy, that is, script that the writer intended to impact the viewer aesthetically, writing that not only conveys information by its semantic content but also speaks through its formal appearance.¹¹ To make a linguistic analogy, calligraphy is to writing as *fusha* (literary Arabic) is to plain speech. Calligraphy is thus the opposite of cacography.¹²

The narrower definition, in turn, helps to frame the contents of the book. It excludes, for example, the grocery list. Usually handwritten, it conveys information and must necessarily be readable, but the items on it are hazardedly penned, often by different hands with different implements, in no useful order.¹³ This definition also excludes many graffiti, in which the desire to record some presence or event supersedes the form in which it is written. Similarly, following this more restricted definition of calligraphy, I exclude many but not all of the papyri that survive from early Islamic times. These documents have been ably studied by Geoffrey Khan,¹⁴ who drew the distinction between the ideal or standard forms of the letters – the ones that scribes intended to write, and their actual realization – the ones they did write. Following terms developed by Noam Chomsky for literary theory, Khan separated script competence, the ideal forms as realized by a scribe's careful execution, from script performance, the actual result of a scribe's writing.¹⁵ Most of the papyri, especially private and commercial correspondence and accounts, were not carefully and consistently executed according to a specific standard (*muhaqqaq*) but used a poorly executed unofficial script which was current for popular purposes (*mutlaq*). In other words, they are written in a rough script in which the need to convey information supersedes the form in which it is given. By contrast, the letters that I have included, such as one on papyrus from the chancery of Qurra ibn Sharik to the sovereign of Asuh, c. 710 (Figure 3.1), are carefully and consistently executed and come closest to the ideal forms. They fall at the higher end on the scale of execution.

Following the same line of reasoning, I have included several examples of documents from later periods, ranging from a twelfth-century pilgrimage scroll (Figure 6.12) to letters and decrees issued by the major Islamic dynasties, including the Fatimids (Figure 6.7), Ilkhanids (Figure 7.13), Aqqoyunlu (Figure 7.14), Mamluks (Figure 8.11), Tughluqs (Figure 9.7), Nasrids (Figure 9.11), Jafavids (Figure 10.11), Ottomans (Figures 11.16 and 11.17), Mughals (Figure 12.8), and sultans of Aceh (Figure 12.10). I chose these examples because their calligraphic form, as well as their materials and decoration, were meant to impress the receiver visually, just as their lofty prose was intended to do so aurally. These letters are written in a formal script, just as the language used in them represents official rhetoric as opposed to colloquial speech. They are thus calligraphy or fine writing.

But what of the first word in the title, Islamic? It is the adjectival form of Islam, literally in Arabic, submission (to God). Islam as a noun referring to the faith professed by Muslims is a relative neologism. The term occurs only six times in the Koran, in which the more common word was simply *al-din* (the faith), but it has been adopted in modern times to designate the religion that God revealed to the Prophet Muhammad in seventh-century Arabia.¹⁶ The adjective Islamic refers specifically to matters related to that religion, but it has often assumed a broader connotation of matters related to the culture or civilization in which Islam was the prominent religion.

The renowned historian Marshall Hodgson tried to underscore this important distinction between the religion of Islam and the overall society and culture associated historically with that religion.¹⁷ He coined the terms 'Islamdom' for the society in which Muslims and their faith in one way or other are recognized as prevalent and socially dominant and 'Islamicate' for the culture centered on a lettered tradition that has been historically distinctive of Islamdom, the society. His terminology, however, was somewhat unwieldy and has not been generally accepted. But his point is an essential one.

Here, I use Islamic in Hodgson's sense of Islamicate, meaning related to the culture that developed in the lands in which Islam has been a major presence over the last fourteen hundred years. Many of the calligraphic specimens illustrated in this book relate specifically to the faith. Indeed, folios from Koran manuscripts form the vast majority of the illustrations. But these are not the only ones. In addition to official documents, there are examples from literature, especially poetry (e.g., Figures 5.10 and 7.15). There is even a cookbook (Figure 9.10).

One can question the suitability of such a broad rubric as 'Islamic calligraphy,' asking whether

any communality exists in the various scripts used during the past fourteen hundred years over one quarter of the globe. Hodgson already called attention to the inadequacy of the term 'Islamic world' as projecting the image of a single, unified entity, when no such thing has ever existed historically. Similarly, he rejected the term 'Muslim lands' as underrating the collective aspect of this society. Hence, he coined Islamdom, meaning not an area but a complex of social relations, to be sure one that is defined more or less territorially.

Art historians are now taking up some of Hodgson's objections and questioning the very idea of an 'Islamic art.'¹⁸ That term was created by Western art historians at the end of the nineteenth century, partly as a by-product of European interest in delineating the history of religion. It came into favor only in the twentieth century when Westerners began to look back to a golden age of Islamic culture they believed had flourished in the eighth and ninth centuries and to project it simplistically onto the kaleidoscopic modern world. The term privileges the lands where Islam first spread in the seventh and eighth centuries, the so-called 'Rug Belt' that stretches from North Africa to Central Asia. It often excludes areas to which Islam spread in later centuries, notably India, Indonesia, and central Africa, although these are precisely the areas with the largest Muslim populations today. In addition, the term often excludes the diaspora community, although the Muslim populations in Europe and America are expanding rapidly. Islamic art is, in short, a poor name for an ill-defined subject and one that works better for the early period than the later.

Such criticism cannot be leveled so easily at the term Islamic calligraphy, for writing is one of the most important threads that runs through Islamic civilization. Hodgson already noted the lettered tradition central to this culture that is historically distinctive of Islamdom, the society. The major script used in the Islamic lands was devised for writing Arabic. As Arabic was the language in which Muhammad received the revelation from God, the script used for writing the sacred word was adopted for many other languages spoken in the lands where Islam flourished. These other languages include not only Persian (e.g., Figures 6.1, 6.14, 7.6, 7.10, 10.10), Chaghatay (Figure 9.2) and Ottoman Turkish (Figures 11.1, 11.5, 11.16), Urdu (Figure 12.3), Malay (Figure 12.10), and Kanembu (Figure 12.15), all illustrated in this book, but also others such as Kurdish, Pashto, Kashmiri, and Sindhi, which are not. After the Roman system, Arabic script is the most used segmental script in the world.¹⁹ Extra dots and strokes are added to indicate the sounds in these other languages that are not represented in Arabic, but the basic form of the letters remain the same (see Chapter 1 for a description of Arabic script). Thus, this book might have been titled 'Arabic calligraphy,' meaning calligraphy written in Arabic script, but such a title threatens to confuse script with language, and hence I have opted for Islamic calligraphy, meaning by that calligraphy written in Arabic script.

I write this survey of Islamic calligraphy as an outsider. I was not raised writing Arabic script, nor have I trained as a calligrapher. I am not a Muslim. Rather, as a Canadian-born, American-educated art historian, I approach this subject, as many readers will, from the outside. I first encountered Arabic calligraphy as a graduate student at Harvard University in the early 1970s. During my second year there, I took a seminar on the subject with Annemarie Schimmel, the noted authority on Islamic mysticism and herself the author of several erudite studies of Islamic calligraphy, ranging from a manual to a survey of its social aspects.²⁰ For her seminar, I chose to write about the calligraphy in a superb copy of the *Shahnama* made for the Mongols (Figure 7.6), a manuscript that I just happened to be studying in another seminar with Oleg Grabar. I convinced not only these two professors, but also Wheeler Thackston, with whom I was studying Persian poetry, that the calligraphy in this manuscript would make an appropriate topic for the required research paper in each of their courses. By doing so, I was able to concentrate my research and came up with some quite startling findings, some of which became the basis of my first book, co-authored with Professor Grabar.²¹

That research convinced me of the primacy of the written word in Islamic art, a subject often slighted by art historians, who traditionally favor the picture. Yet, the dot formed by pressing the

nib of the pen to paper and the ruling of the page determine the layout of most book illustrations, and the direction of writing determines the direction of looking at works of art, for both book illustrations and other objects of Islamic art need to be 'read' from right to left.²² A seminar on Persian paleography given by Wheeler Thackston under the auspices of the Medieval Academy of America during the summer of 1982 confirmed my interest in Arabic script. The subject has intrigued me ever since, and many readers may know that I have written on various aspects of it from the viewpoint of a historian of Islamic art. But precisely as a result of this, I fully realize that I miss much of the passion and fervor that calligraphy evokes in both the practitioner and the believer. Readers interested in the subject from these vantage points should look elsewhere, and several examples of practical manuals and handbooks written by present-day practitioners are discussed in the final chapter here on modern calligraphy.

There are other viewpoints as well. The noted Iranian philosopher Seyyed Hossein Nasr, for example, approaches the subject of Islamic calligraphy as a Sufi or mystic.²³ For him, all Islamic art embodies a spiritual message, inspiring the remembrance and contemplation of God. Citing a range of writers and philosophers, mainly Persian, he maintains that calligraphy is the visual embodiment of the crystallization of the spiritual realities (*al-haqa'iq*) contained in the Islamic revelation. He is interested in universalities rather than mundane chronologies and historical developments. One cannot object to his claim that calligraphy – especially the fine hands used to pen Koran manuscripts – creates awe and emotion in the believer, but his connection to actual examples and objects is tenuous.²⁴ His essay, then, evokes the overarching spiritual message of Islamic calligraphy, particularly Koranic verses, but does not help the reader understand its developments over time.

Similar reservations pertain to the recent study of writing by the French-born American-trained art historian Oleg Grabar, who began his 1989 Mellon lectures on *The Mediation of Ornament* with one on 'The Intermediary of Writing'.²⁵ Writing, for him, is a form – to judge from its primary position in his book, the most important form – of ornament, that aspect of decoration that appears to have no other purpose but to enhance its carrier. Like Nasr, Grabar's perspective is transcendent, rather than specific, and he draws his examples from a wide range of cultures, ranging from early Chinese bronzes to the Book of Kells. Intensely provocative, he consistently throws out questions, many of them unanswerable but stimulating in causing the reader to ponder. His purpose was not to produce a history of Islamic calligraphy, but rather to put forward theoretical reflections on its function. In short, it is an armchair think-piece, not a practical guide.

My purpose, though similarly art historical, is somewhat different here: to apply some of the methodologies developed in the study of Western art history to delineate the development of Arabic writing over the last fourteen centuries and to put it in global perspective. Such work can be done, in part, because of the long tradition of collecting and writing about Islamic calligraphy. Treatises on Islamic calligraphy and calligraphers survive from medieval times onwards, and several of these, ranging from the brief entries by the tenth-century encyclopedist 'al-Nadim to the full-length treatises by the Safavid chronicler Qadi Ahmad and the Ottoman Mustafa 'Ali, have been edited and sometimes translated.²⁶ In accordance with the prosopography standard in the Islamic lands, much of the information in these works is biographical.²⁷ Modern scholars, beginning with the monograph by Clément Huart, in turn have produced biographical compendia on individual calligraphers.²⁸ This sort of study is still popular among contemporary authors, both in the Islamic lands and in the West.²⁹

Another tack used to study the history of Islamic calligraphy has been to collect surviving works signed by famous calligraphers, and many 'studies' of Islamic calligraphy are catalogues with short essays accompanying many beautiful illustrations of individual examples. One of the first was Salah al-Din Munajjid's collection of pre-eleventh-century specimens available on microfilm at the Institute of Manuscripts in Cairo.³⁰ The recent publication by M. Uğur Derman under the auspices of IRCICA is a far handsomer example of the same type.³¹ Other publications were linked to

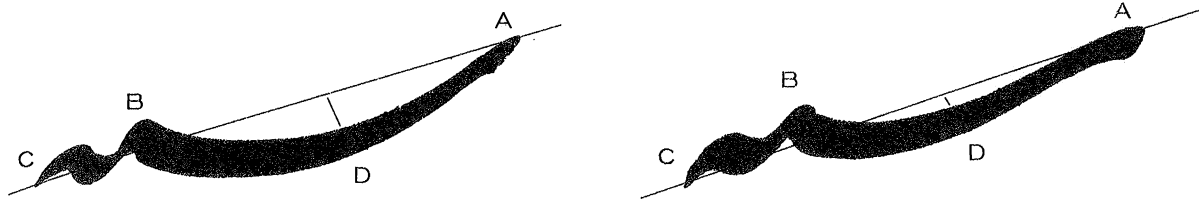


Figure P.1 Drawing of a word penned by the master Persian calligrapher Tawhidi Tabari (left) and its copy by his student Vlad Atanasiu (right).

This drawing illustrates the difference between work by a master calligrapher and a more pedestrian copy by his student. The master penned the word as a single continuous curve solidly anchored on the imaginary line AC, whereas his student's copy is broken into segments divided at point B. The master uses more circular movements, emphasizing the greater curve in the first half and changing the thickness of the stroke, features that add liveliness to his hand. His student's copy is flatter, looser, and duller.

exhibitions. Martin Lings and Yasin Safadi's catalogue of the Koran manuscripts exhibited at the British Library as part of the Festival of Islam held in London in 1976 was a milestone in this regard: it comprised short descriptions of the 164 manuscripts in the exhibition, alongside many illustrations, including twenty-four color plates.³² Lings' companion volume contains 114 larger plates, all in color, that allow the reader to savor the glories of Koranic calligraphy and decoration visually.³³ Safadi's slightly later survey of Islamic calligraphy incorporates more examples drawn from a wider repertory, including works in many media.³⁴ In general, these are picture books, in which the importance of the image supersedes the analysis of it.

These catalogues do not represent a new tradition: collectors and connoisseurs have been collecting albums of calligraphic specimens for many centuries. Some of the oldest of these albums, known in Arabic and Persian as *muraqqa'* (patchwork), survive in the Topkapı Palace in Istanbul; they show that collecting calligraphic specimens was already popular in Iran by the fifteenth century.³⁵ The tradition continued, particularly in the eastern Islamic lands, and became more specialized, with some albums devoted to the work of a single calligrapher. In the so-called St Petersburg Album, for example, 121 of the 122 remaining folios contain exercises penned by Mir 'Imad, the sixteenth-century master of the sloping script known as *nasta'liq*, making it by far the richest repository of his style.³⁶

Only in recent times have scholars begun to analyze Islamic calligraphy within a historical context, trying to identify the salient characteristics of individual styles. The best studies address the calligraphy of a particular place in a particular period, as, for example, Adolf Grohmann's two-volume study of paleography from early Islamic times or Priscilla Soucek's essays on Persian calligraphy in the Timurid and Safavid periods.³⁷ What I have tried to do here is to put these separate studies and my own work together in a coherent narrative that also sketches development and change.

I am also looking to use criteria such as balance, line, modulation, and repetition to distinguish fine Islamic calligraphy from ordinary writing. These qualities are not so different from those that distinguish all calligraphy. Legibility, rhythm, consistency, and style are the four features mentioned as benchmarks of world-class handwriting, according to the director of the 2004 World Handwriting Contest.³⁸ Nevertheless, the exigencies of Arabic script exert certain parameters. Arabic is written, for example, using multiple penstrokes per word and has the possibility of expansion between letters. Firm contour, flowing line, and tension are therefore qualities specially prized in writing Arabic. Compare, for example, the same word penned by a master calligrapher with the softer and flatter copy done by his student (Figure P.1).³⁹ Furthermore, since Arabic is written from right to left and

since Muslims traditionally use their right hands for writing (Figure 1.1) as well as most other activities, writing is more a push (rather than a pull) activity.⁴⁰ One of the few exceptions is the tail on final *ya*, which can be drawn backward to the right, and calligraphers were quick to exploit the potential of this sweeping stroke. Already in early Islamic times, calligraphers penning kufic script exploited this device to space out their texts (see Figures 3.2b, 3.7, etc.). By the age of empires, they had developed the returning tail of final *ya* into a long line that could divide the text into two (Figure 10.2) or even three (Figure 12.4a) tiers. Hence, to help the reader understand some of these parameters, this book opens with a preliminary section laying out the importance and principles of writing Arabic script and discussing the main materials used for calligraphy in the Islamic lands.

The bulk of the book is organized primarily along historical lines, divided into five periods arranged according to the framework developed by Hodgson in his magisterial survey of Islamic history.⁴¹ Part II discusses Arabic script in early times, basically up to the year 900 CE. There are very few dated manuscripts made before the ninth century, so the discussion begins with dated examples in other media – notably inscriptions, coins, and papyri – before turning to an examination of early Koran manuscripts and the various methods of, and difficulties in, dating them. Part III covers the early middle period, essentially the years 900 to 1250 CE, when papyrus and parchment were gradually supplanted by the new material of paper, the writing support that soon became ubiquitous. Along with, and probably because of, this new support, a new rounded script came to the fore.

For most of these first six centuries of Islamic civilization, it is possible to speak only of an Arabic calligraphy used over a vast region, for we are still struggling to distinguish regional variants. By the end of this period, however, we can identify a distinctive *maghribi* script used in Spain and North Africa, the lands known in Arabic as the Maghrib (west). This development marks a watershed, and in the later periods, distinctive regional styles develop in calligraphy, as in many other arts. In contrast to Parts II and III, then, Parts IV and V are organized along geographical lines.

Part IV discusses the emergence of regional styles in the later middle period (1250 to 1500 CE). These include the six round scripts known as the Six Pens and the hanging styles developed in Iran and adjacent lands as well as the rectilinear and curvilinear scripts popular in the Mamluk domains. A third chapter in this section covers the calligraphy from other regions to which Islam had spread, namely Anatolia, India, and the Maghrib.

In the following centuries much of Islamdom was carved up into empires. The most important from the standpoint of calligraphy – though not of politics or economics – were the Safavids and Qajars in Iran and the Ottomans around the Mediterranean. A discussion of the calligraphic traditions in these two areas is followed in Part V, as it was in the previous section, by a chapter on the calligraphic traditions in other areas. These outlying regions include India, both the subcontinent and the littoral around the Indian Ocean, and Africa, both North and sub-Saharan. The discussion is arranged in this order because the styles evolved from one region to the next.

The final part, VI, deals with calligraphy in the twentieth century and the very beginning of the twenty-first. In many ways, this section was the most difficult to write. It was also the most fun. It encompasses a huge geographic range, as it includes works produced not only in the traditional heartlands of Islam and the areas to which the faith spread, but also calligraphy produced by Muslims elsewhere, notably in Europe and America. In this later period there are simply many more practitioners and many more examples from which to choose. The calligraphers work in a variety of styles and modes, a spectrum ranging from the refinement of traditional scripts to newer and more inventive examples, some of which are not meant to be read at all. There is also less consensus about the aesthetic merits of many of these works. Everyone admires the work of the tenth-century calligrapher Ibn al-Bawwab, but the verdict is not in about his modern equivalent(s). The Jordanian artist and critic Wijdan Ali writes scathingly about the poor quality of much modern work, which, in her view, is exploited to cater to religious sensibilities and popular taste and driven by a desire for

material gain through commercialization.⁴² I have therefore organized this chapter on modern calligraphy differently than the historical ones, choosing instead the faultline of traditional approaches and newer ones, including the application of calligraphy to different media ranging from typography and computer graphics to painting and sculpture.

The chronological and regional organization I have followed in this book is not written in stone. Not every illustration is later than the one that precedes it, but readers can get an overall feel for the evolution of Arabic script simply by flipping through the pictures. Those at the beginning of the book are generally earlier. Many readers will also note, no doubt, that material from Persia often precedes that from the Arabic or Turkish lands. Thus, calligraphy done under the Ilkhanids and the Timurids (Chapter 7) precedes that by the Mamluks (Chapter 8), and likewise the Safavids and Qajars (Chapter 10) come before the Ottomans (Chapter 11). This was a deliberate choice made for many reasons. In large part, it is a value judgment, as, in my view, calligraphers in the eastern Islamic lands were often – though certainly not always – more innovative than their counterparts elsewhere. Thus, the styles known as the Six Pens practiced by Yaqut in Baghdad (Chapter 7) emerged in Iran earlier than in the Mamluk domains (Chapter 8). Persian calligraphers developed the hanging scripts for writing Persian (Chapter 7), and these were then taken up in the Ottoman lands (Chapter 11).

In small part, the order of the chapters is due to the accessibility of the material. I have tried to draw my examples from a range of museums and archives, but I have given preference to those examples that I have been able to examine first-hand. The major repository of Arabic manuscripts, the Dar al-Kutub, or National Library, in Cairo, has been undergoing difficulties for many years, and I have rarely succeeded in penetrating its walls, and then only briefly. Similarly, the library at the Topkapı Palace has reopened only recently after several years of much needed expansion and reorganization. Iran was closed to Americans for twenty-five years following the Iranian Revolution, but once I got back, the doors to most museums and libraries were wide open. The publication of the material there, however, lags.

Readers will also note that the discussion is mainly taxonomic. In other words, I am trying to pinpoint the salient characteristics that distinguish one style or script from another. In many cases, particularly for the earlier periods, I have avoided adding names or labels to these scripts, other than strictly visual ones, for I feel strongly that such labeling is premature. Written sources give a plethora of names for various scripts. The tenth-century chronicler Ibn al-Nadim, one of our earliest sources for the history and development of Arabic script, lists some sixteen scripts used to transcribe the Koran in the early period.⁴³ Some names are geographical (e.g., from Mecca, Medina), others descriptive (*muthallath*, 'tripled' or 'three-fold'; *mudawwar*, 'rounded'; and *mashq*, 'model'), and some are incomprehensible and of unclear vocalization (*munabadh*). Unfortunately for our purposes, these same sources do not illustrate what they are talking about and rarely, if ever, give a specific description of what distinguishes one script from another. The first surviving source that gives both names and examples of the individual scripts dates only from the very beginning of the sixteenth century: al-Tayyibi's slim volume compiled for the last Mamluk sultan, Qansawh al-Ghawri, in 908/1503 (see Chapter 8). In other words, for the first two-thirds of the Islamic period – more than nine hundred years – we have no surviving examples of a script identified by a named sample.

The lack of information given in the sources has resulted in a plethora of terms used today for different scripts. Many are confusing, if not downright contradictory. The layperson – and even the specialist – might not know that the names eastern kufic, eastern Persian kufic, broken kufic, kufic *naskhi*, Carmathian kufic (also spelled Qarmathian, Qarmati or Karmati) and even western kufic, new style, new 'Abbasid style, broken cursive, and *warraqi* have all been used to identify the same script. Furthermore, much of what is written about Arabic calligraphy is very subjective: what one person calls *muhaqqaq*, another may call *rayhan*, for authors rarely lay out the criteria they use to distinguish different scripts. Lacking such a handbook, surveys of Islamic art often underrate and

underrepresent calligraphy, privileging pictures over words (or, more precisely, pictures of pictures over pictures of words).

In view of this massive lacuna in the evidence and confusion in the secondary literature, I have adopted an alternative methodology: to begin not with texts, but with extant examples. Although most are executed on supple supports as part of codices (see Chapter 2 for a discussion of supports), a few are written in other media, ranging from coins and mosaics to stucco and stone. These fill out the record in the early period when dated examples do not exist in manuscript form. They are also important in the later period when paper was readily available for cartoons and patterns, so that calligraphers could – and did – design inscriptions that were executed by different craftsmen in other media. The calligrapher's work on paper may not have survived, as did the stucco or tile, which was executed by masons or craftsman but drawn by calligrapher. Such a transformation of the calligrapher's art was made easier with the introduction of graph paper and squaring.⁴⁴

I have also tried to work from dated, localized, and well-attested specimens. Dated examples form the framework on which to establish the chronological parameters of a style or technique. For localization, I have relied first on works whose colophons specify where they were produced. Failing such direct evidence, I have occasionally used the epithet, or *nisba*, of the scribe. By contrast, I have ignored the current location of a specimen, as François Déroche has repeatedly shown that manuscripts moved widely, even in early Islamic times. One of the earliest Koran manuscripts with a colophon (Figure 5.4) states that it was made in Madinat Saqilliya, referring to Palermo, yet it ended up in the mosque of Damascus.⁴⁵ Of the enormous libraries amassed by the Fatimid caliphs in Cairo, only two manuscripts have survived: one with single volumes now in Cairo and Calcutta; the other, itself made in Baghdad, in Rabat, Morocco.⁴⁶ Manuscripts or pages now in Kairouan or San'a were not necessarily made there, and to assume so, as some scholars have done, is, to my mind, not a sound methodology.

Secure provenance is equally important, as imitations and forgeries were already rife in medieval times. According to the twelfth-century chronicler Yaqt,⁴⁷ the acclaimed tenth-century calligrapher Ibn al-Bawwab himself claimed he had successfully imitated the hand of the ninth-century master Ibn Muqla. When in charge of the Buyid library in Shiraz, Ibn al-Bawwab had come across twenty-nine parts of a manuscript penned by the master. They were scattered among other manuscripts in the library, but an intensive search failed to bring to light the remaining volume (*juz'*). After Ibn al-Bawwab reproached his patron for failing to preserve the precious manuscript, the prince Baha' al-dawla instructed the calligrapher to write out the missing part imitating the master's hand. Should the prince fail to detect the imitation, he promised to reward the calligrapher with a robe of honor and one hundred dinars.

Ibn al-Bawwab gives details about how he achieved his goal. Scouring the library, he procured old paper on which to transcribe the missing *juz'*. He then illuminated it, giving the gold an antique appearance, and bound it in one of the original bindings he had removed from an authentic volume. No wonder that a year later, when the prince recalled the incident and inspected the manuscript, he was unable to detect the forgery. The incident shows that already in the early tenth century calligraphers were expected to make undetectable copies of earlier masters' hands. Such imitations can fool the best experts, medieval or modern. Using manuscripts with an established pedigree means that even if not ultimately authentic, they are, at the least, models of what the masters' hands were considered to look like in earlier times.

This survey is, alas, male-dominated, for Islamic calligraphy is traditionally a man's art. Our earliest reports about female calligraphers are only textual. The theologian and man of letters Ibn Hazm (994–1064), for example, says that he was taught calligraphy by women.⁴⁸ His contemporary Ibn Abi'l-Fayyad (d. 1066) reports that 170 women were employed copying Koran manuscripts in kufic script in only one eastern quarter of Córdoba. They are said to have worked day and night by candlelight.⁴⁹ We cannot, however, identify any of their work. We are on firmer ground in the eastern

Islamic lands, and the earliest surviving manuscript calligraphed by a woman that I know is a multi-volume copy of the Koran transcribed by Zumurrud Khatun bint Mahmud ibn Muhammad ibn Malikshah and endowed to the shrine at Mashhad in Rabi‘ I 540/August–September 1145.⁵⁰

By the age of empires, women were more common as calligraphers as well as patrons and collectors of calligraphy. Families of calligraphers, including wives and daughters, are said to have worked in Safavid Shiraz, and many Qajar princesses were trained in the art of calligraphy (see Chapter 10). The same tradition existed at the Mughal court (see Chapter 12). It was more widespread under the Ottomans, when women from clerical families like Emine Servet Hanim also became noted calligraphers. The youngest daughter of the Shaykh al-Islam, Sayyid Hasan Hayrallah, she married a bath-house owner but separated from him and went to live in Madina with her grandfather. Childless, she regarded her nine *hilyas* (calligraphic compositions describing the Prophet) as her offspring, including the one that she penned for her license issued in 1291/1874–5 and certified by the major Ottoman calligraphers of the day, including the master Qadi-‘askar Mustafa ‘Izzet.⁵¹ The balance continues to evolve today. There are dozens of female calligraphers practicing in Iran,⁵² and artists like Wijdan ‘Ali (Figure 13.1) and Etel Adnan (Figure 13.12) integrate calligraphy into their art.

This handbook, then, is designed to show a general audience, even those who do not read Arabic or other languages written in the Arabic script, how to recognize and appreciate the different styles of writing in Arabic script. It is a survey, with examples drawn from all periods and places. I have tried to speak (or more precisely, write) specifically to the appropriate illustration. When this was impossible, I have tried to refer the reader to readily accessible places where a particular example is illustrated. My guideline was to be accessible, not exhaustive.

To be further user friendly in this age of increased specialization, especially in view of the enormous scope of this enterprise, I have tried to simplify the technical apparatus. I use as few foreign words as possible. Words in the text are generally written without the diacritical marks often spotting scholarly publications. A glossary gives the fully pointed transcribed form of the most important terms, as well as a definition, the equivalent in other languages, and other related forms such as the singular or plural, the nouns formed from verbs, and the like.

Anticipating that my audience will be mainly Western-based (and Western-biased), I have given century dates using only the Common Era calendar (typically abbreviated as CE) to allow readers to readily situate these works in the historical past they know best. Most of the calligraphers who penned these pieces, however, used a different, lunar calendar that was reckoned to date from the year of the Prophet’s migration from Mecca to Medina in the early seventh century and is commonly known today as the *hegira* date (*anno hegirae*, typically abbreviated as AH). To find the equivalent century in the Muslim lunar calendar, one can estimate by subtracting six. But I have clung to the specific *hegira* dates given in signatures or colophons, citing them in the two calendars, following the normal scholarly practice, first as they were as written in the Muslim form, followed by a slash and the equivalent date in the Common Era. Thus, the colophon tells us that Sultan-‘Ali Mashhadi finished transcribing the magnificent copy of Farid al-Din ‘Attar’s *Mantiq al-Tayr* that he made at Herat for the Timurid sultan Husayn Bayqara (Figure 7.17) on 1 Jumada I 892. That date is equivalent to 25 April 1487, and hence the two dates are given in the caption as 1 Jumada I 892/25 April 1487. Any particular year in the Muslim calendar often overlaps with two in the Common Era calendar, and therefore the joint dates often end up looking somewhat lopsided. For example, another colophon tells us that the renowned calligrapher Ibn al-Bawwab copied his Koran manuscript (Figure 5.8) at Baghdad in 391, a lunar year that ran from 1 December 1000 to 19 November 1001 CE. Following the usual form, this is given in the caption as 391/1000–1.

I have also simplified place names, using standard modern spellings, such as Mecca and Medina (not the technically correct Makka and Madina). I have also used historically generalized areas. Thus, Persia refers not specifically to the territory occupied by modern Iran, but to a broader area that at

times incorporated parts of present-day Turkey, Afghanistan, and the Central Asian republics. Similarly, India refers to the subcontinent, not the modern country. Other common words are equally simplified. Thus, I have opted for the traditional Anglicized spelling Koran, over its hypercorrect form Qur'ān, which is typically mispronounced by many. Again, my goal is ready recognition and accessibility over literalness.

I had tremendous support along the long journey working on this book. Some was financial. An Independent Research Grant from the National Endowment for the Humanities in 1998–9 allowed me to begin research and writing, and a year's fellowship from the Guggenheim Foundation in 1999–2000 let me continue. Others helped underwrite the publication. I particularly wish to acknowledge the Millard Meiss Fund of the College Art Association and Shaykh Hussah al-Sabah.

Equally important was the encouragement and support from colleagues. Carole and Robert Hillenbrand first proposed that I write this book and gently prodded me into finishing it. Wheeler Thackston not only introduced me to the joys (and horrors) of the Persian and Arabic languages and scripts, but always responded with alacrity to my cries for help. Many other colleagues patiently responded to my plaintive requests for information and illustrations. Among them I would particularly like to thank Shirin and Tariq Adhami, Wijdan Ali, Alireza Anisi, S. K. Aruni, Catherine and Frederick Asher, Julia Bailey, Colin Baker, Ali Banuazizi, Marianne Barrucand, Michael Bates, Jake Benson, Sheila Canby, Stefano Carboni, Nina Cichocki, Anna Contadini, François Déroche, Massumeh Farhad, Alain Fouad George, Abdoullah Gouchani, Teresa Fitzherbert, Jaclynne Kerner, Linda Komaroff, Donald Little, Sophie Makariou, Mary McWilliams, Madad Mollazal, Venetia Porter, Yves Porter, Francis Richard, David Roxburgh, Irvin Schick, Barbara Schmitz, John Seyller, Marianna Shreve Simpson, Abolala Soudavar, Jeff Spurr, Tim Stanley, Parviz Tanavoli, Zeren Tanındı, Luke Treadwell, Richard Verdery, Jan Just Witkam, Larry Wolff, and Elaine Wright. Elissa Quinn, my research assistant at Boston College, doggedly filled my requests for obscure odds and ends.

My biggest scholarly debt is to the Boston College Libraries. Adeane Bregman, art librarian at Bapst Library, steadfastly guided me through the intricacies of the many databases, periodicals, and other resources available on-line through the library. For a book about hand craftsmanship, this is very much the product of an electronic age. The interlibrary loan division provided me with unparalleled access to written materials. At the drop of a hat, from my home computer, I could (and did) command the world's bibliographic resources. The office never (or at least rarely) flinched at my demands for books and articles in what must have seemed obscure publications from all corners of the globe. If I was not their most prolific user, then I am sure that I asked for (and obtained) publications in a wider spectrum of unfamiliar languages than most. Edinburgh University Press provided guidance and support along the long journey. Nicola Ramsey commissioned the book and steadfastly saw it through to its conclusion years later. Stuart Midgley successfully navigated the bureaucratic shoals in some twenty countries to procure illustrations from around the world. This book simply would not look as it does without his calm and perseverance, especially in the face of repeated obstacles.

My deepest emotional debt lies with my family – Jonathan, Felicity and Oliver – who have endured countless bouts of fatigue, boredom, and gloom when I simply had had enough and wanted to throw in the towel. They steadfastly trooped around with me to exhibitions and collections and put up with my absences when I went away. They also helped me win innumerable games of Spider Solitaire as I tried to while away time while seeming to look busy at the computer. I dedicate this book to them.

Notes

1. Similarly, epigraphy (inscriptions) derives from the Greek 'to write on.' Generally written on harder materials such as stone and wood, epigraphy can thus be distinguished from calligraphy, which is written on supple supports. For these supports, see Chapter 2; for Islamic epigraphy, see my comparable survey, Sheila S. Blair, *Islamic Inscriptions* (Edinburgh, 1998).

2. *The Compact Edition of the Oxford English Dictionary* (Oxford, 1971), 1:38. The term appeared in European languages slightly earlier during the Renaissance; the first citation in French, for example, dates to 1569; see Vlad Atanasiu, 'Hypercalligraphie le phénomène calligraphique à l'époque du sultanat mamluk' (Paris, 2003), 83.
3. *Webster's Third New International Dictionary* (Springfield, MA, 1976), 318.
4. *An Arabic-English Lexicon* (London and Edinburgh, 1863), 759-60.
5. See F. Krenkow, 'The Use of Writing for the Preservation of Ancient Arabic Poetry,' in *Ajabnama: Studies in Honour of Edward Granville Browne* (Cambridge, 1922); A. F. L. Beeston, et al., *Arabic Literature to the End of the Umayyad Period*, Cambridge History of Arabic Literature (Cambridge, 1983), 38-114. For evocative translations of some of these poems into modern verse, see Michael Anthony Sells, *Desert Tracings, Wesleyan Poetry in Translation* (Middletown, CT, 1989).
6. See Atanasiu, 'Hypercalligraphie,' 84.
7. For details of his biography, see Chapter 11.
8. Hans Wehr, *A Dictionary of Modern Written Arabic*, 3rd edn, ed. J. Milton Cowan (Ithaca, NY, 1971).
9. *The Encyclopaedia of Islam, New Edition*, ed. H. A. R. Gibb and others (Leiden, 1960), 'Khatt.'
10. A similar compound is used in Persian (*khushnvisi*) and in Turkish (*güzel yazisi*). The former is attested already in the treatise on calligraphy, *Tuhfat al-muhibbin* (The Gift of Friends), written by Abu'l-Da'i Ya'qub ibn Shaykh, known as Siraj al-Husayni al-Shirazi c. 1500; see Atanasiu, 'Hypercalligraphie,' 83.
11. By script, I follow the definition given by Michael Gullick in the introduction to his article in Jane Turner (ed), *The Dictionary of Art* (London, 1996), Script: 'system or style of writing. Scripts are identifiable, and their particular features enumerated, as a consistent graphic representation of notations or letters of the alphabet.' A script is therefore a hypothetical model; it can be distinguished from a hand, what a particular individual writes. Gullick used the example of italic: 'Michelangelo and Queen Elizabeth I wrote not an italic script but very different italic hands.' Gullick makes the further point that all scripts pass through periods of immaturity, maturity and decline, generally maturing quickly and declining slowly. His article concerns the history of Western scripts, but the same holds true for the various scripts used in Arabic calligraphy.
12. Edward M. Catich, *The Origin of the Serif: Brush Writing and Roman Letters* (Davenport, IA, 1991 [1968]), 15, defined calligraphy as the art of making letters of fine quality by either writing or lettering, and cacography as its opposite.
13. I am thinking here of the grocery list that hangs near our kitchen door. All members of the family add to it when necessary, either because we are running out of a particular item or because we need something new for a special dish. They write using whatever implement is laying about, be it a crayon, a pencil, or a pen with black or colored ink. In order to do logical shopping, the items need to be rearranged mentally.
14. *Arabic Papyri: Selected Material from the Khalili Collection* (London, 1992); *Bills, Letters and Deeds: Arabic Papyri of the 7th to 11th Centuries*, ed. Julian Raby, The Nasser D. Khalili Collection of Islamic Art (London, 1993). Khan noted that the script used on them bears some resemblance to contemporary monumental styles of writing found in inscriptions, on coins, and in Koran manuscripts.
15. The distinction is in some ways comparable to Gullick's script and hand.
16. On these terms and their meanings, see *Encyclopaedia of the Qu'rān*, gen. ed. Jane Dammen McAuliffe (Leiden, 2001), Islam (2:565-71) and Religion (4:395-98).
17. Marshall G. S. Hodgson, *The Venture of Islam* (Chicago, 1974), esp. 57-60.
18. See the recent review of the subject by Sheila S. Blair and Jonathan M. Bloom, 'The Mirage of Islamic Art: Reflections on the Study of an Unwieldy Field,' *Art Bulletin* 85, no. 1 (March 2003): 152-84.
19. Alan S. Kaye, 'Adaptations of Arabic Script,' in *The World's Writing Systems*, ed. Peter T. Daniels and William Bright (New York, 1996), 743-62.
20. The manual is *Islamic Calligraphy, Iconography of Religions XXII*, 1 (Leiden, 1970); the survey of its social aspects, *Calligraphy and Islamic Culture* (New York, 1984). Other general works by her on the subject include 'Islamic Calligraphy,' *The Metropolitan Museum of Art Bulletin* 50, no. 1 (Summer 1992); 'Calligraphy and Epigraphy,' in *The Oxford Encyclopedia of the Modern Islamic World*, ed. John L. Esposito (New York and Oxford, 1995), 1:243-47.
21. Oleg Grabar and Sheila Blair, *Epic Images and Contemporary History: The Illustrations of the Great Mongol Shah-Nama* (Chicago, 1980).
22. For the role of the dot and ruling in determining layout, see Chahryar Adle, 'Recherche sur le module et le tracé correcteur dans la miniature orientale. I. La mise en évidence à partir d'un exemple,' *Le Monde*

- Iranien et l'Islam* 3 (1975): 81–106; for the role of direction in 'reading' imagery as on the splendid ivories from Andalusia, see Sheila S. Blair, 'What the Inscriptions Tell Us: Text and Message on the Ivories from al-Andalus,' *Journal of the David Collection* 2 (2005), 76.
23. Seyyed Hossein Nasr, *Islamic Art and Spirituality* (Albany, 1987).
 24. The so-called 'eastern kufic' was not the first script used to write the word of God (as stated in the caption to the plate on p. 31), nor were Koranic verses routinely used on day-to-day objects (the slip-painted plate and inlaid brass ewer illustrated on pp. 20 and 22 are inscribed with Arabic aphorisms and superogatory prayers). Rather, Koranic verses were almost never used on such objects (see Sheila S. Blair and Jonathan M. Bloom, 'Qur'anic Inscriptions in Art and Architecture,' in *Cambridge Companion to the Qur'an*, ed. Jane McAuliffe [Cambridge, forthcoming]), and many of those, like the luster glass vase that was recently offered for sale by Sotheby's on 13 October 2004 (lot 34), are fake. Withdrawn before the sale, it is probably a late Roman piece that was 'redecorated' in modern times.
 25. Oleg Grabar, *The Mediation of Ornament*, A. W. Mellon Lectures in the Fine Arts, 1989 (Princeton, 1992).
 26. Al-Nadim, *The Fihrist of al-Nadīm: A Tenth-Century Survey of Muslim Culture*, ed. and trans. Bayard Dodge (New York and London, 1970); *Calligraphers and Painters: A Treatise by Qādī Aḥmad, Son of Mīr-Munshī* (Circa AH 1015/AD 1606), intro. by B. N. Zakhoder, trans. V. Minorsky, Occasional Papers (Washington, DC, 1959); *Gulistān-i hunar*, ed. Aḥmad Suhaylī-Khānsārī (Tehran, 1352/1974); Muṣṭafā 'Alī Efendi, *Manāqib-i Hunarvarān*, ed. Ibnülemin Mahmud Kemal Inal (Istanbul, 1926).
 27. Much of the information about the ulema, or learned class, was written down in the form of biographical dictionaries, often known as *tabaqat* (literally, layers or strata, hence classes). They number in the hundreds or thousands. Written already from the ninth century, the early ones focus on religious scholars, but by the tenth century they include men of letters and bureaucrats. The first major general one was Ibn Khallikan's *Wafayāt al-a'ayn*, completed in Cairo in 672/1274. For an overview of the genre and its impact on our knowledge of the ulema, see R. Stephen Humphreys, *Islamic History: A Framework for Inquiry* (Princeton, 1991), 187–208.
 28. Clément Huart, *Les Calligraphistes et miniaturistes* (Paris, 1909).
 29. E.g., Mahdī Bayānī, *Aḥvāl wa āthār-i khushnivīsān: nasta'liq nivīsān*, 2nd edn (Tehran, 1363/1985); Schimmel, *Calligraphy and Islamic Culture*.
 30. Ṣalāh al-din al-Munajjid, *al-Kitāb al-'arabī al-makhtūṭ ilā'l-qarn al-'āshir al-hijrī* (Cairo, 1960).
 31. M. Uğur Derman, *The Art of Calligraphy in the Islamic Heritage*, trans. Mohamed Zakariya and Mohamed Asfour (Istanbul, 1998).
 32. Martin Lings and Yasin Safadi, *The Qur'an* (London, 1976).
 33. Martin Lings, *The Quranic Art of Calligraphy and Illumination* (London, 1976).
 34. Y. H. Safadi, *Islamic Calligraphy* (Boulder, CO, 1978).
 35. For further details on these albums and examples from them, see Chapter 7 and Figures 7.7 and 7.9.
 36. Facsimile and commentary published as *The St Petersburg Muraqqa': Album of Indian and Persian Miniatures from the 16th through the 18th Century and Specimens of Persian Calligraphy* by 'Imād al-Ḥasanī (Milan, 1996). See Chapter 10 for further details about this calligrapher and examples of his work (Figures 10.9 and 10.10).
 37. *Arabische Paläographie I*, Österreichische Akademie der Wissenschaften Phil-Hist. Klasse. Denkschriften. Bd. 94/1 (Vienna, 1967); *Arabische Paläographie II: Das Schriftwesen und die Lapidarshrift*, Österreichische Akademie der Wissenschaften Phil-Hist. Klasse. Denkschriften. Bd. 94/2 (Vienna, 1971); Priscilla P. Soucek, 'The Arts of Calligraphy,' in *The Arts of the Book in Central Asia: 14th–16th Centuries*, ed. Basil Gray (Boulder, CO, 1979), 7–34; Priscilla P. Soucek, 'Calligraphy in the Safavid Period 1501–76,' in *Hunt for Paradise: Court Arts of Safavid Iran, 1501–1576*, ed. Jon Thompson and Sheila R. Canby (Milan, 2003), 49–72.
 38. See the article by Michelle York, 'In a Scribbler's World, the Fountain Pen's Flourish Gets Some Glory,' *New York Times* Section E, column 2 (26 July 2004): 1, reporting on this year's first-place award in the artistic-handwriting category.
 39. This illustration is taken from Atanasiu, 'Hypercalligraphie,' fig. 6.3, which also contains an interesting chapter on the graphic qualities of Arabic script (82–94).
 40. The same is true for writing Roman script for left-handers.
 41. Hodgson, *Venture*.
 42. Wijdan Ali, *Modern Islamic Art: Development and Continuity* (Gainesville, FL, 1997), 159.
 43. Al-Nadim, *Fihrist*, 10–11.

44. Jonathan M. Bloom, *Paper before Print: The History and Impact of Paper in the Islamic World* (New Haven, 2001).
45. François Déroche, 'Cercles et entrelacs: format et décor des Corans maghébins médiévaux,' *Académie des Inscriptions & Belles-Lettres, Comptes Rendues*, March 2001, 593–620.
46. Ayman Fu'ad Sayyid, 'L'art du livre,' *Dossiers d'archéologie*, no. 233 (May 1998): 80–3.
47. *Irshad* 5:446, translated in D. S. Rice, *The Unique Ibn al-Bawwāb Manuscript in the Chester Beatty Library* (Dublin, 1955), 7–8.
48. On writing in tenth-century Córdoba, see further Robert Hillenbrand, "'The Ornament of the World": Medieval Córdoba as a Cultural Centre,' in *The Legacy of Muslim Spain*, ed. Salma Khadra Jayyusi, *Handbuch der Orientalistik I/12* (Leiden, 1992), 112–35. Córdoba is also said to have had female librarians.
49. Ṣalāh al-Dīn al-Munajjid, 'Women's Roles in the Art of Arabic Calligraphy,' in *The Book in the Islamic World: The Written Word and Communication in the Middle East*, ed. George N. Atiyeh (Albany, 1995), 145–6; François Déroche, 'Tradition et innovation dans la pratique de l'écriture au Maghreb pendant les IVe/Xe siècles,' in *Afrique du Nord antique et médiévale. Numismatique, langues, écritures et arts du livre, spécificité des art figurés (Actes du VIIe colloque internationale sur l'histoire et l'archéologie de l'Afrique du Nord)*, ed. S. Lancel (Paris, 1999), 235, n. 8, citing J. Ribera, 'Bibliofilos y bibliotecas en la España musulmana,' in *Disertaciones y Opusculos* (Madrid, 1928), 199.
50. Ramaẓān-'alī Shākiri, *Ganj-i hizār sāla-yi kitābkhāna-yi markazī-yi āstān-i quds-i riẓavī qabl wa ba'd az inqālab* (Mashhad, 1367/1989), 107. The calligrapher and patron can be identified as the daughter of Sanjar's nephew (his sister's son), the Qarakhanid prince Mahmud ibn Muhammad, who succeeded his uncle as Saljuq ruler in 552/1157. Following the incursions by the Ghuzz in 548/1153, Zumurrud had the shrine rebuilt and the dados of the tomb chamber revetted with luster tiles, at least one of which bears her name (*Encyclopaedia Iranica*, ed. Ehsan Yarshater [London and New York, 1985], Āstān-i quds). Ten sections (*juz*' 35–44) of the thirty-part manuscript survive at the shrine; two others (*juz*' 45–6) were plundered in the Uzbek–Safavid struggles.
51. For the license, see 'An Icāzet of Emine Servet Hanim,' in *M. Uğur Derman 65 Yaş Armağanı*, ed. Irvin Cemil Schick (Istanbul, 2000), 347–52. For her biography, see *Son Hattatlar* (Istanbul, 1955), 802–3.
52. *Hunar-i khaṭṭ wa zanān-i khūshnivīs dar tamaddun-i islāmī* (Tehran, 1375), nos. 34–104.

Part I: Introduction

Arabic Script: Its Role and Principles

WRITING IN ARABIC script became a, if not the, main theme in Islamic visual culture as it spread over one-quarter of the globe during the past fourteen hundred years. This chapter begins by outlining some of the reasons why. Arabic as the language of the revelation played a seminal role in the religion of Islam and in the civilization that flourished under Muslim patronage, and the script developed for writing Arabic was adapted to fit other languages, first New Persian, then Turkish, and eventually a host of others, both Semitic and non-Semitic, including several Berber languages of North Africa; the Iranian languages of Pashto, Kurdish, and Baluchi; the Indo-Aryan Urdu, Sindhi, and Kashmiri; the Dravidian Moplah; and the Austroneasian Sulu, Malagasy, and Malay. The result is that Arabic, after Roman script, is the segmental script most frequently used in the world today. Still other languages commonly used to be written in Arabic, ranging from Swahili, Kanuri, Hausa, and Fulani in central Africa and Harari in Ethiopia to Slavic Serbo-Croatian in Bosnia, Polish, Belarussian, and even Japanese. Muslims in medieval Spain wrote their native Romance tongue in Arabic characters in the script known as *aljamiado*.¹

In virtually all times and places Arabic was esteemed not only for its content but also for its form. This chapter therefore turns next to a discussion of the basic principles of Arabic script that determined the parameters within which calligraphers could develop their art. It is not intended as a primer in Arabic; rather the section highlights features that affected formal performance, so that even those who do not read Arabic script can appreciate some of the calligraphic *tours de force* illustrated in the subsequent chapters.

For many people, Muslims and non-Muslims alike, copies of the Koran, God's revelations to the Prophet Muhammad in the early seventh century, epitomize Islamic calligraphy. Indeed pages, from magnificent codices of the Koran – whether on parchment or paper, penned in brown or black ink in a variety of scripts, and often decorated with gold – form the text most frequently illustrated in this book, comprising some one-third of its illustrations. The third and longest section of this chapter therefore discusses the contents and form of this scripture and its fundamental role in the development of Islamic calligraphy.

The importance of writing in Islamic culture

The extensive use of writing is one of the hallmarks of Islamic civilization. Writing decorates buildings and objects made in all media throughout the course of Islamic civilization from the seventh century to the present in almost all regions from the far Maghrib, or Islamic West, to India, south-east Asia, and beyond. Calligraphy, the art of writing beautifully, became one of the main methods of artistic expression. It was, moreover, the only one of the visual arts produced in the Islamic lands that was widely appreciated within its own culture, with treatises devoted to its history and artistic merits written from medieval times onward.

In part, the Islamic tradition developed out of local precedents, for in both the ancient Near East and the classical world, inscriptions had long been used to decorate the walls and façades of buildings as well as other monuments like triumphal arches. The Assyrians and the Achaemenids had used the wedged-shaped script known since the early nineteenth century as cuneiform (literally, wedge-shaped), inscribing it on official objects ranging from small seals to large-scale reliefs. Neo-Assyrian palaces built between the ninth and seventh centuries BCE at sites like Nimrud, Nineveh, and Khorsabad were decorated with marble and limestone orthostats, or tall upright slabs, each inscribed in the middle register with a dozen lines of text. The standard inscription detailed the king's name, titles, and epithets; summarized his military achievements; and described the appearance of the palace. On the long walls, the inscription was sandwiched between upper and lower registers with a continuous series of images (usually termed narratives) depicting royal hunts and military conquests. On the slabs framing doorways, the text traversed larger-than-life-size representations of the king, his attendants, and winged deities. Reiteration drove home the message, which was superimposed over and unified the images into a coherent program of royal ideology.²

The Romans too recognized the artistic possibilities of monumental inscriptions. They developed a system of clear and simple lettering in which both the letters and the spaces between them were made to conform to aesthetic principles. Such an innovation had a major impact on Western art and visual culture, for the Roman system of monumental script is still the basis for modern lettering and book printing in the West.³ Writing dominated public space. Its civic function and its prominent position in the open affected its appearance and graphic style.⁴ The Romans manipulated epigraphic layout; letter size, which was dependent on height and placement; and shading, which was achieved through V-cut carving, as in the inscription at the base of the column erected by the Roman emperor Trajan in 105 CE, generally reckoned the finest masterpiece of Roman monumental lettering.⁵

In these earlier cases, writing usually supplemented and explained the accompanying image. What is different about Islamic art is that

writing became the main – and sometimes the only – element of decoration. This fundamental change was due, in large part, to the pivotal role of the word in the religion of Islam. Its importance is clear from the five verses beginning Chapter 96 (Iqra' or al-ʿAlaq) of the Koran, generally reckoned to be the first words revealed to the Prophet Muhammad:

In the Name of God, the Merciful, the Compassionate,
 Recite: In the name of thy Lord who created,
 created Man of a blood-clot.
 Recite: And thy lord is the Most Generous,
 who taught by the Pen,
 Taught man that he knew not.⁶

In other words, the knowledge of writing distinguishes man from God's other creatures.

The importance of writing runs throughout the Koran. Chapter 68 (*Surat al-Qalam*), another early revelation, opens with the words, 'Nun. By the Pen, and what they inscribe.' According to another pair of verses revealed slightly later (Chapter 50, or al-Qaf, verses 17–18), two noble angels sit on man's shoulders recording his every action and thought. The one on the right notes down good deeds, the one on the left evil ones. On Judgment Day, they will tote up man's every deed for the final accounting in the Book of Reckoning (Chapter 69, or *Surat al-Haqqa*, verses 18–19).

Although the Koranic text is never illustrated, artists in later periods incorporated the imagery from it in other works. This painting of the two scribbling angels (Figure 1.1), for example, comes from a lavishly illustrated manuscript of al-Qazvini's cosmography, *Aja'ib al-makhluqat wa ghara'ib al-mawjudat* (The Wonders of Creation and the Oddities of Existence).⁷ The text is an encyclopedic work that summarizes existing literature on astronomy, geography, botany, mineralogy, and zoology by dividing the known universe into the spheres of heavenly bodies, water, and earth. Transcribed at Wasit in 678/1280, this manuscript is the only complete copy of the work known, made three years before the author's death in the city where he served as chief judge, or *cadi*. Interestingly, the angels do not write in codices, the ubiquitous book format in the Islamic lands, but on scrolls, the format used for official documents at this time, as in the contemporary decree issued by the Mongols in 692/1292 (Figure 7.13). The Ilkhanid artist therefore saw these angels as bureaucrats!

The centrality of the Koran led to the promotion of the Arabic language from a regional idiom to the *lingua franca* of an empire. During the Prophet's lifetime, Arabic was spoken by only a relatively small number of people in the region to the east and south-east of the Mediterranean Sea. That situation changed dramatically following the Umayyad conquests westward across North Africa and eastward over the Iranian plateau and the establishment of a centralized

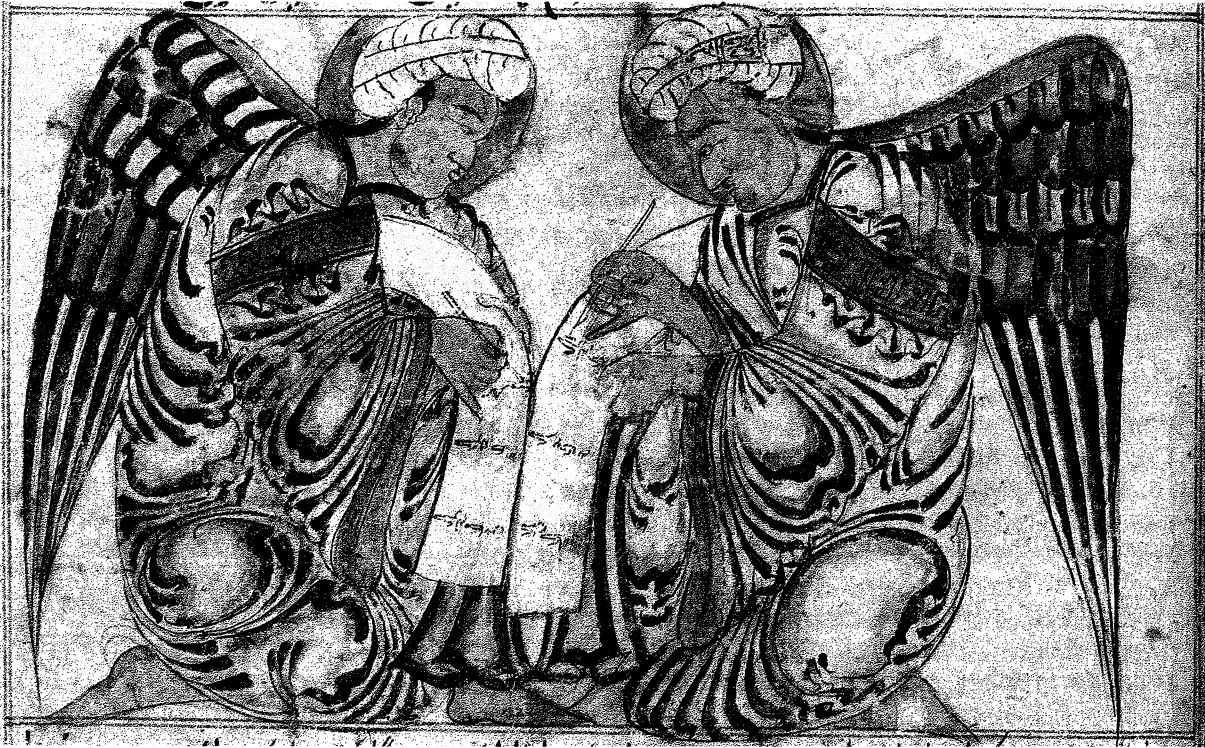


Figure 1.1 *Scribbling angels from a manuscript of al-Qazvini's Aja'ib al-makhluqat (Wonders of Creation) copied at Wasit in 678/1280.*

The text of the Koran, God's revelations to the prophet Muhammad, stresses the importance of writing. Verses 17–18 of Chapter 50 (Surat al-Qaf) mention two recording angels who tote up men's deeds, and such angels were depicted in other kinds of manuscripts made in later periods, such as this copy of a cosmography about the wonders of creation. The angels write with reed pens in widely spaced lines on long scrolls, the format used in this period for bureaucratic decrees.

empire ruled from Damascus in Syria. During the reign of the Umayyad caliph 'Abd al-Malik (685–705), Arabic began to replace local languages in the chancery. Administrative decrees and correspondence, along with coins, milestones, and monuments, show that by this early date the form of the script was already standardized (see Chapter 3). The use of Arabic continued to expand, and within three centuries Arabic had replaced such older languages as Latin, Greek, Syriac, and Middle Persian to become the language of religion, government, commerce, literature, and science from the Iberian peninsula across the southern and eastern shores of the Mediterranean, Iraq, and Iran to western Central Asia. Arabic script became a distinguishing characteristic of Islamic civilization, one of the ways that medieval Muslims distinguished themselves from other cultures, and, like the standardized script developed at the beginning of the first millennium in China, a major tool in fostering cultural coherence.⁸ To change the Arabic script, as Kemal Atatürk did in Turkey on 28 November 1928, signaled a conscious break from this religious and cultural tradition.

The importance of calligraphy in the Islamic lands is often compared to that of east Asian, specifically Chinese or Japanese, calligraphy.⁹ In both traditions, calligraphy was considered the supreme art, the one valued most highly in its home culture. Both traditions also maintained a similar dichotomy and play between the form of the

script and the meaning of the words. Nevertheless there are significant differences between the east Asian and the Islamic traditions. Some are material: Chinese and Japanese calligraphers worked with a brush, Muslims with a pen. The flexibility and multiple fibers of the standard writing implement affected the fluidity and uniformity of the strokes. Cultural values played a role as well. Both Chinese and Japanese calligraphers imbued their art with their personal style. East Asian calligraphers generally sat motionless, contemplating the moment of artistic creation, and then with a burst of creativity, applied brush to support. As a result, the reader is meant to sense the personality of the artist through the calligraphy.¹⁰ In following the brushstrokes, the reader experiences a visual sequence of movement and rest and thus participates in the physical process of creation.¹¹

This scenario does not hold true in the Islamic lands, where the individual artist is thought to have applied pen to support in regular, steady strokes. Illustrations of Muslim calligraphers at work date only from later times (see Figure 12.1 for an example from the early seventeenth century), but textual descriptions lead us to assume that they had worked this way in earlier times as well. The reader is not meant to glean the calligrapher's personality from the script, but rather to appreciate the unwavering line and modulated forms that reflect the transcendence of the Almighty. Palpability and movement are replaced by ineffability and control, complex characters by simple strokes.¹² In east Asian work, furthermore, calligraphy is often appended to a mimetic representation, whether other ornament on a cast bronze or painted landscape on a scroll.¹³ By contrast, in the Islamic realm, calligraphy typically stands alone, as pictorial art is discouraged in most religious or official settings. Writing thus became one of the main vehicles to signify power, belief, legitimacy, and many other ideas and ideologies for which images are used elsewhere. Islamic culture is, in the words of Erica Dodd, 'the image of the word.'¹⁴

Principles of Arabic script

Calligraphy conveys information through both its semantic content and its formal appearance (and also through its aural resonances for the reader, who recites or internalizes the sounds).¹⁵ Even without reading or understanding the first, it is possible to appreciate the second if one is aware of some fundamental principles of the Arabic writing system. Arabic script, like Hebrew and Syriac but unlike Greek and Roman, is written from right to left, although, curiously, the numbers reflect an ancestral system and read in the opposite direction, from left to right. This right-to-left orientation dramatically affects layout,¹⁶ for the reader always begins at the right side of the page. Codices – the ubiquitous book form adopted in the Islamic lands – therefore, open in the opposite way that they do in the West.

Arabic script, like Greek and Roman scripts but unlike Egyptian or

Mayan hieroglyphics and Chinese characters, is written with individual symbols for letters.¹⁷ In an alphabetic language, these characters denote both consonants and vowels, but the system used for Arabic is what linguists call an *abjad*, meaning that these characters denote consonants (Figure 1.2).¹⁸ Many scripts have at least two distinct forms of writing: a monumental or printed form, in which the letters are written separately, and a cursive or handwritten one, in which they are connected. Compare, for example, a printed book or a carved gravestone with a handwritten letter. Arabic script, however, has only the cursive form of writing, although it has many *styles*. Because the individual letters in a word can be connected together, they change their shape depending on their position within the word. The same letter can have one form when it stands alone (independent), another at the beginning of a word (initial), a third in the middle of a word (medial), and yet a fourth at the end of a word (final). These forms are interrelated, and their position in relation to the baseline (a hypothetical ruling on which the letters 'sit') can vary, depending on the preceding or following letter. Unlike most other modern languages, there are no upper- and lower-case forms in Arabic script. Instead, particular words or phrases are used to indicate the beginning of a declarative sentence, a new thought, or a question. Despite sporadic attempts to introduce it in the nineteenth century (see Chapters 11 and 13), modern Western-style punctuation – commas, periods (full stops), parentheses, question marks, and so forth – was not used until recent times.

The traditional *abjad* used for writing Arabic has twenty-eight distinctive phonemes, or sounds, but only eighteen graphemes or forms, so the same form has to be used for as many as five different sounds. For example, the letters *ba'*, *ta'*, *tha'*, *nun*, and *ya'* (transcribed in English as b, t, th, n, and y) are all represented by the same shape. Although they assume different shapes in final position, these five letters are all written in initial and medial positions in the same shape of a short upright stroke, often called a tooth. These letters can be distinguished only by the dots accompanying them: one below the letter for *ba'*, two and three above the letter for *ta'* and *tha'* respectively, one above the letter for *nun*, and two below the letter for *ya'*. In other cases, identical forms are used to represent two or three letters in all positions. The letter *ghayn*, for example, is exactly the same as *'ayn* except for the dot written above it. The same is true of *sad* and *dad*. *Jim*, *ha'*, and *kha'* have the same shape, but one dot below, no dot, and one dot above, respectively.

Like all other Semitic languages, the Arabic language is based on a system of roots, where three (or sometimes four) consonants, or radicals, connote a semantic concept. A vocabulary is generated by grammatically transforming these roots according to regular patterns. Thus, the combination *k-t-b* is a root that conveys the idea of writing; from it are generated cognates including *katib* a writer or scribe, *kitab* a book, *kutubi* a bookseller, *kuttab* a school, and *maktab* a place of

<u>Name</u>	<u>Transcription</u>	<u>Final</u>	<u>Medial</u>	<u>Initial</u>	<u>Independent</u>
alif	ā	ـا	ـا	ا	ا
bā'	b	ب	ـب	ب	ب
tā'	t	ت	ـت	ت	ت
thā'	th	ث	ـث	ث	ث
jīm	j	ج	ـج	ج	ج
ḥā'	ḥ	ح	ـح	ح	ح
khā'	kh	خ	ـخ	خ	خ
dāl	d	د	ـد	د	د
dhāl	dh	ذ	ـذ	ذ	ذ
rā'	r	ر	ـر	ر	ر
zā'	z	ز	ـز	ز	ز
sīn	s	س	ـس	س	س
shīn	sh	ش	ـش	ش	ش
ṣād	ṣ	ص	ـص	ص	ص
ḍād	ḍ	ض	ـض	ض	ض
ṭā'	ṭ	ط	ـط	ط	ط
zā'	z	ظ	ـظ	ظ	ظ
'ayn	'	ع	ـع	ع	ع
ghayn	gh	غ	ـغ	غ	غ
fā'	f	ف	ـف	ف	ف
qāf	q	ق	ـق	ق	ق
kāf	k	ك	ـك	ك	ك
lām	l	ل	ـل	ل	ل
mīm	m	م	ـم	م	م
nūn	n	ن	ـن	ن	ن
hā'	h	ه	ـه	ه	ه
wāw	w/ū	و	ـو	و	و
yā'	y/ī	ي	ـي	ي	ي
lām-alif	lā	ـال	ـال	ال	ال
tā' marbūta	-a/at	ـة	ـة		ة

Figure 1.2 Chart of the twenty-eight letters in the Arabic abjad.

The *abjad*, or consonantal script, used to write Arabic has twenty-eight phonemes, which change their shape depending on their position in a word. Derived from Aramaic, this system uses only eighteen different forms, so to render the twenty-eight individual consonants, a system was developed to add dots to some of the letters. Thus, *ba'* and *ta'* are the same form, but have one dot below and two dots above, respectively. When Arabic script was adapted to write Persian and Turkish, which have sounds like *p* and *g* that are not used in Arabic, the *abjad* was expanded to thirty-two letters by adding extra dots or bars. For example, *p* is written like *b* but with three dots below instead of one.

writing or office (Figure 1.3). Similar transmutations produce words from other roots.

Also like other Semitic languages, Arabic (and from it other languages written in Arabic script) requires that only the consonants and long vowels be written. As the root and grammatical form of the Arabic language define virtually every word in the lexicon, the reader can supply the unwritten short vowels from the context. Thus *k-t-b*

Figure 1.3 Chart showing various forms of the root k-t-b.

Arabic, like other Semitic languages, is based on a system of roots, sets of three or sometimes four letters that denote a concept and are combined in regular ways to form words. The root *k-t-b*, for example, conveys the idea of writing. Transforming it in regular ways by the addition of vowels, prefixes, infixes, and suffixes produces cognates like *katib* (scribe), *maktab* (office), *muktatib* (subscriber), and *maktaba* (bookstore).

<u>Definition</u>	<u>Transcription</u>	<u>Arabic Form</u>	<u>Arabic Form (Vocalized)</u>
to write	<i>kataba</i>	كَتَبَ	كَتَبَ
piece of writing	<i>kitāba</i>	كِتَابَة	كِتَابَة
bookseller	<i>kutubī</i>	كُتُبِي	كُتُبِي
Koran school	<i>kuttāb</i>	كُتَاب	كُتَاب
office	<i>maktab</i>	مَكْتَب	مَكْتَب
offices	<i>makātib</i>	مَكَاتِب	مَكَاتِب
bookstore	<i>maktaba</i>	مَكْتَبَة	مَكْتَبَة
typewriter	<i>miktāb</i>	مِكَتَاب	مِكَتَاب
correspondence	<i>mukātāba</i>	مَكَاتِبَة	مَكَاتِبَة
enrollment	<i>iktītab</i>	اِكْتَاتِب	اِكْتَاتِب
dictation	<i>istiktāb</i>	اِسْتِكْتَاب	اِسْتِكْتَاب
writer, scribe	<i>kātib</i>	كَاتِب	كَاتِب
written	<i>maktūb</i>	مَكْتُوب	مَكْتُوب
correspondent	<i>mukātib</i>	مَكَاتِب	مَكَاتِب
subscriber	<i>muktatib</i>	مَكْتَب	مَكْتَب

can be read either as *kataba* (he wrote) or *kutiba* (it was written), and the reader depends upon the context to decide which reading is correct. The short vowels and other marks for such features as doubling (gemination), nunation (adding a final n), and the like can be added above or below the letters, especially if there is chance of confusion. Such markings became common when transcribing Koran manuscripts to reduce the risk of misreading scripture.

In order to adapt Arabic script for writing other languages, notably Persian and Turkish, some modifications had to be made, as these two languages have a few sounds that do not exist in Arabic. Certain letter forms were adapted by adding dots to letters that represented similar phonemes in Arabic. For example, the letter *pa'* (pronounced p), the unvoiced form of *ba'* (pronounced b), is written with three dots below, rather than the one used for *ba'*. The same kind of transformation holds for *cha'* (ch) and *jim* (j) as well as *zha'* (zh) and *za'* (z). The letter *gaf* (g) is written by adding another bar to the *kaf* (k). In this way the eighteen letter shapes used for writing the twenty-eight phonemes of the Arabic *abjad* were expanded to cover the thirty-two phonemes used in Persian and Turkish, the first two languages to adopt Arabic script. Using the same kinds of transformations, this versatile system was adapted to transcribe scores of other languages.¹⁹

Although these three languages use the same *abjad*, they belong to different branches of the linguistic tree: Arabic to the Semitic group, Persian to the Indo-European group, and Turkish to the Turkic group. In each of these three, different sounds and different letters predominate, resulting in different patterns of the written script.²⁰ In Arabic, sounds tend to be arranged by groups (nasals, labials, etc.), and the most common vowel is a. Turkish, by contrast, is marked by a predominance of palatals (k, g, q, sh, and j). Persian has a regular alternation between different categories of sounds and in this sense might be termed the most harmonious of the three.

In Arabic, the most common letter is *alif*, the first letter of the *abjad*, written as a tall vertical stroke and often compared metaphorically, particularly by mystics, to a standing person who refused to prostrate.²¹ It indicates the most frequent of the three long vowels, long a, and is the graphic support or seat (*kursi*) for the glottal stop (*hamza*). It occurs in seven of the ten regular conjugations or morphographic forms of any given root.²² It also appears in many common words and phrases. *Alif* is written, for example, as part of seven of the twelve personal pronouns and the feminine plural ending *-at*. Most importantly, it opens the definite prefix *al-* (the), in which it is paired with *lam*, another tall upright stroke that connects to the left. *Alif's* frequency on the page gives written Arabic a pronounced verticality, and the common combination *alif-lam* produces a sense of rhythm, like upright soldiers marching across a parade ground.

The other two languages commonly written in Arabic script are different. Persian is marked by the repetition of the determinative suffix *-ra*, the indefinite suffix *-i*, and the regular verbal endings *-ast* ([he/she/it] is) and *-and* ([they] are). Many of these letters are written with curved forms. Turkish is an agglutinative language that uses not only prefixes and suffixes, but also infixes. The result is many long words.

Calligraphers exploited the tendencies latent in the regular forms of these three languages written in Arabic script. For example, when writing Arabic, they often exaggerated the verticality engendered by the repeated use of *alif*. For balance, they elongated other letters horizontally according to the principle known variously as *mashq*, *madd*, or *kashida* (see Chapter 3 and Figure 3.7, 3.8, etc.). Sometimes they intertwined the double uprights of *alif* and *lam* or inserted supplementary U-shapes to fill spaces left blank because there were no upright letters (Figure 6.3). Calligraphers writing Persian emphasized curves, superposing words above an imaginary baseline and eventually creating hanging scripts that descended diagonally from upper right to lower left (see Chapter 7). Calligraphers writing Turkish learned to adjust for the length of words, often using the same hanging styles and emphasizing the repeated cross-strokes of *kaf* and *gaf* (e.g., Figure 2.6).

Writing Arabic script – whether for Arabic, Persian, Turkish, or other languages – differs in several significant ways from writing the cursive form of Roman script.²³ Most letters in the Arabic *abjad* are

Figure 1.4 Theoretical model showing the transformation of the letters in the Arabic alphabet.

Lisa Volov (Golombek) put forward a theoretical model to explain the development of letter shapes in Arabic script. She grouped the letters in five categories based on shape (vertical, rectangular, round, low, and oblique) and posited three degrees of transformation to each category: natural transformations that do not change the basic forms of the letters, internal modifications that alter the relationship between parts, and superimposed ornaments that are added to the basic shapes of the letters.

		Column A— BASIC FORMS*	
I	VERTICAL	A' 1 2 3	B-T-Th-Ni-a-Yi-a 4 5 6
		ا ج	ب ث ت ن ي س
II	RECTANGULAR	D-Dh 1 2	K 3 S-D 4 T-Z 5
		ذ د	ك ق ص ظ
III	ROUND	Q-F 1 2	M 3 H 4 W 5
		ق ف	م ه و
IV	LOW	R-Z 1 2	N 3 W 4
		ر ز	ن و
V	OBLIQUE	A-Gh 1 2 3	J-H-Kh 4 5 6
		ع غ ح	ح خ ك

simpler in form than those in the Roman script (and much simpler than Chinese characters). This simplicity of form facilitates streamlining and encourages shortcuts and other modifications. Thus, in many later styles of Arabic script, calligraphers often flattened the three little bars or teeth of *sin/shin* into one long, swooping stroke. Similarly, they extended the descending tails of final *nun*, *ya*, and similar letters into large curving bowls. The internal shapes of letters could also be stretched. This is particularly dramatic in the case of rectangular graphemes such as *dal*, *sad*, *ta'za*, and *kaf*, whose medial forms comprise parallel lines.

In the theoretical model for the transformation of Arabic letters posited by Lisa Volov,²⁴ such types of modifications are natural transformations because they require no radical change in the basic forms of the letters (Figure 1.4). They mark a first degree of transformation. Calligraphers writing Arabic script could further transform the letter shapes by incorporating motifs or devices from the non-epigraphic vocabulary, such as interlacing or foliation. For example, they could twist or knot the upright stroke of an *alif* or the parallel bars of a rectangular letter. These internal modifications comprise a second degree of transformation as they still occur within the confines of the basic letter forms, but alter the relationship between parts. In a third

Column B— NATURAL TRANSFORMATION	Column C— INTERNAL MODIFICATION	Column D— SUPERIMPOSED ORNAMENT
		
		
		
		

degree of transformation, calligraphers could add superimposed ornaments, appendages that do not affect the basic forms of the letters. In contrast to the first and second degrees of transformation, the third degree consists solely of additive elements and properly belongs to the realm of decoration rather than writing.

Two other characteristics of the Arabic writing system affect the relationship between word and penstroke. Unlike the Roman alphabet, in which all letters can be connected to both the previous and the following letter, seven of the thirty-two letters in the expanded Arabic *abjad* (*alif*, *dal*, *dhal*, *ra*’, *za*’, *zha*’, and *waw*) – or more than 20 per cent – do not connect to the following letter. Arabic script also has far more diacritical marks. When writing English, for example, only two letters of the Roman alphabet (*i* and *j*) require diacritical marks, whereas twenty-one of the letters (66 per cent) do in Arabic script as printed today. Of these, seventeen letters (*ba*’, *pa*’, *tha*’, *jim*, *cha*’, *ha*’, *kha*’, *dhal*, *za*’, *zha*’, *shin*, *dad*, *za*’, *ghayn*, *fa*’, *qaf*, and *nun*) require a dot or dots; five letters (*alif madda*, *ta*’, *za*’, *kaf*, and *gaf*) require upright or diagonal strokes; and a further letter (*ta’ marbuta*) can require dots in certain situations. There are also free-floating diacritical marks, such as the strokes to denote the short vowels *fatha*, *kasra*, and *damma* that can be added in cases of possible ambiguity.

As a result of these two characteristics – the breaks between certain letters within a word and the additional diacritical marks – Arabic script has more penstrokes per word than Roman script. When writing Roman script, the end of the penstroke typically marks the

end of a word, whereas when writing Arabic script, a non-connecting letter requires the end of the penstroke before the end of the word. Some words need two or more penstrokes in addition to diacritical marks. Calligraphers, if they had no space to finish a word at the left end of a line, often broke off at the end of the penstroke. In early Koran manuscripts, they often continued the second part of the word on the following line or even the next page (e.g., Figures 1.5, 4.2, 4.5, 4.6, etc.), a situation akin to the hyphenation used in modern printing, but without any punctuation mark to indicate the break.

In later manuscripts, particularly copies of Persian poetry written in the hanging *nasta'liq* script (e.g., Figures 7.15, 10.7, 12.6, etc.), calligraphers often stacked the last syllable or penstroke above the end of the line at the left. This was especially suitable in Persian, where many words end with the same letters, such as the final *ya'* of the indefinite, the plural ending *-an*, or the third person form of the verb to be, *-ast* or *-and*. Calligraphers could also adjust the location and size of the many diacritical marks. Again this feature is particularly appropriate when writing Persian and Turkish, which have more letters with multiple dots or bars. In addition to the three dots used in Arabic to distinguish *shin* from *sin* and *tha'* from *ta'*, the alphabet for writing Persian also uses three dots for the letters *zha'* and *cha'* and two strokes to distinguish *gaf* from *kaf*. Calligraphers writing Persian in later periods played with these dots, sometimes sprinkling them like seeds on top of a bun and spacing them out to fill the voids left by low letters (e.g., Figure 10.6).

Calligraphers writing Arabic script could also manipulate the spaces between penstrokes. They could, for example, allow the same amount of space between penstrokes within a word as they did between words. That is, they could make the spaces between words the same width as the spaces between syllables or penstrokes. Such even spacing contrasts dramatically with that adopted in modern Western typography, where a wider space is typically left at the end of a sentence to alert the reader visually to a break in thought more significant than the one between words.

The ancient Greeks had done the same thing, rejecting word separation in favor of the so-called *scriptura continua*.²⁵ Ancient languages of the Mediterranean lands, both Semitic and Indo-European, were written with words separated by spaces, points, or a combination of the two. Once the Greeks adapted the Phoenician alphabet by adding symbols for vowels, word separation was no longer necessary to eliminate any unacceptable level of ambiguity that could occur in reading Indo-European languages, which were polysyllabic and inflected. The reader did not need to identify words, only parse syllables. By the second century CE the Romans had adopted the Greek convention as well. They did so deliberately, abandoning the intra-text spaces or punctuation in order to slow down reading and enhance its oral and rhetorical aspects. Such unbroken text also provided mnemonic compensation through enhanced short-term aural recall,

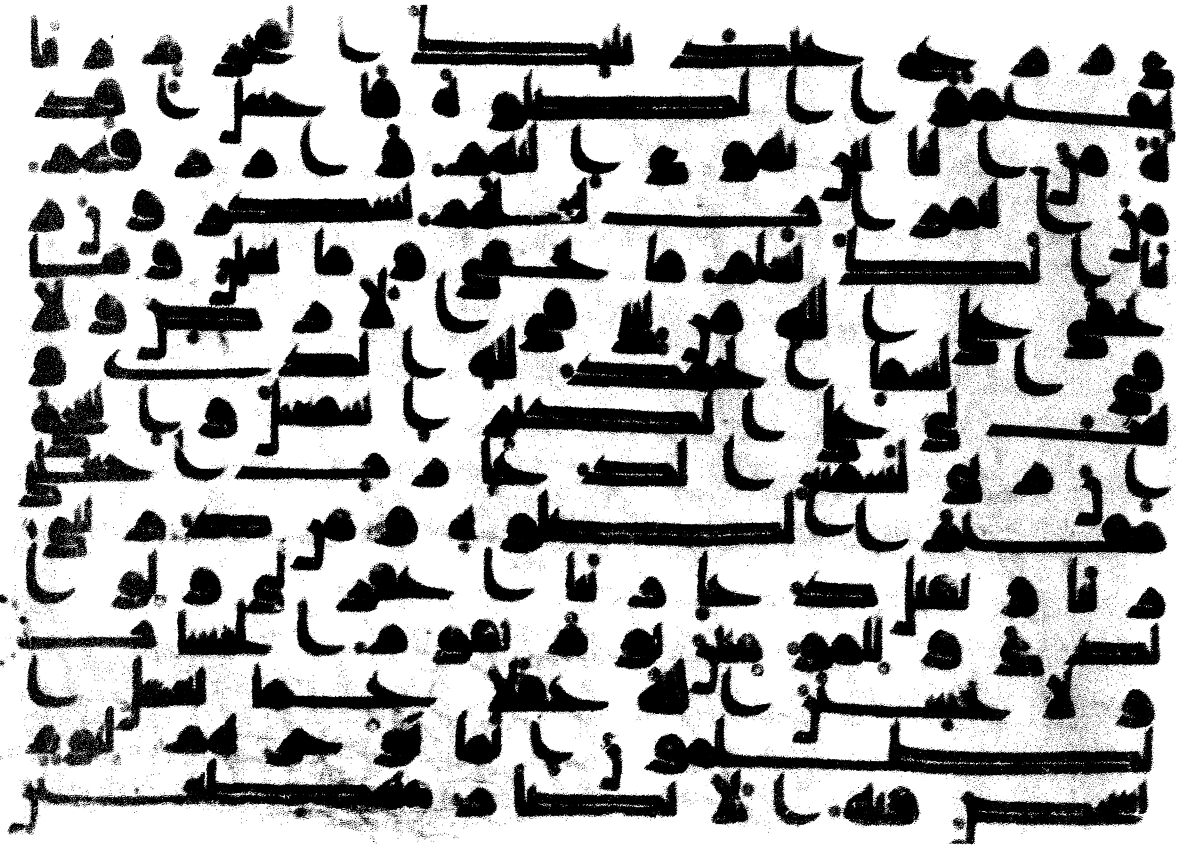


Figure 1.5 Page containing Sura 14:37–43 from a parchment Koran manuscript with fifteen lines per page.

This fragment from an early Koran manuscript was part of a major gift by the Safavid shah ‘Abbas to the shrine of the eighth imam ‘Ali ibn Musa at Mashhad in Iran. The last page contains a colophon alleging that the manuscript was penned by the Prophet’s son-in-law, ‘Ali ibn Abi Talib, and the first page contains an attestation to its authenticity by the leading theologian of the day, Shaykh Baha’i Amili. The Safavids collected these manuscripts to bolster their legitimacy as descendants of the Prophet through his family, though modern scholars doubt that manuscripts like these actually date to the first century of Islam.

for at this time reading meant reading aloud. Silent reading – like the word separation that was adopted in Roman script beginning in the seventh century CE – was embraced only in medieval times.

Calligraphers writing Arabic script sometimes did the same thing, willfully abandoning the spaces between words. We can see this readily on a page from an early Koran manuscript now in the Astan-i Quds library in Mashhad (Figure 1.5).²⁶ The first letter on the page (Figure 1.5a) is a final *ya*, the last letter and penstroke of the word *dhi* (possessing) that began on the preceding page. The space between this final *ya* ending the word is the same size as the spaces between the next three letters *za*, *ra*, and *‘ayn*, three separate penstrokes that make up the following word *zar* (cultivation). In these early Koran manuscripts,



Figure 1.5a

therefore, spacing gives no visual clues as to where one word ends and the next one begins. Such manuscripts must have been used for recitation by someone who already knew the text by heart, with the written record serving as an aide-memoire. Such spacing also performed the positive function of slowing down reading and recitation.

Calligraphers' ability to manipulate both the simple forms and the breaks between penstrokes allows for great flexibility in writing Arabic script. They have the possibility of extension and contraction, more often the former than the latter, and they deliberately exploited the contrast between the two. On the page from the Koran manuscript in Mashhad (Figure 1.5), much of the visual excitement arises from the regular distribution of elongated shapes, either the connector between letters or especially the two parallel bars of graphemes such as *dal*, *kaf*, *ta'*, and *sad*. Such broad rectangular shapes demanded a steady hand, and their rectilinear forms contrast in turn with the curved shapes in other letters such as the bent foot of *alif* and the bowed head of initial *'ayn*. The mark of a good calligrapher, such as the anonymous one who penned this large and thus expensive copy of the Koran, was to distribute these shapes across the page in regular and therefore mentally pleasing patterns.

Some scholars today have attempted to find underlying geometric frameworks to explain the distribution of shapes across the written page. Valery Polosin, for example, suggested that certain aspects of the Islamic book are generated by a geometric grid based on the intersection of various proportional systems of line segments and curves. Most of his work deals with later manuscripts, including frontispieces, book covers, and other aspects of page layout, but he has also suggested that the pages in early Koran manuscripts written in the angular script known as kufic were designed on a proportional grid based on the rhomboidal dot formed by pressing the nib of the pen to paper.²⁷ To my mind, such analyses are not convincing. They are reductionist to the point of absurdity, for, as with the spiraling scrolls that Alexandre Papadopoulo proposed as the underlying basis of all Islamic painting,²⁸ the manipulation of size and scale allows the justification and rectification of virtually any composition to an underlying grid. All Islamic calligraphy is based on geometric considerations, especially the width of the nib and hence the size of the penstroke, but in most cases the art of the calligrapher lies in manipulating the forms free-hand within the constraints imposed by the rectangular page and the lines of text written across it.²⁹

The Koranic text

Written copies of the Koran comprise the most important text for Muslims. Revealed orally to Muhammad, the scripture was soon committed to writing, although scholars have debated exactly how soon this occurred (see Chapter 4). Verses very similar to, though not identical with, the text are inscribed on coins issued by the

Umayyads (Figure 3.4) and on the Dome of the Rock in Jerusalem, ordered by the caliph ‘Abd al-Malik in 72/692 (Figures 3.6 and 3.8), and beautifully written codices of the Koran soon became common. Throughout the course of Islamic civilization, selected verses were also inscribed on all sorts of objects and buildings, such as the Taj Mahal (Figure 12.4).

In view of the Koran’s seminal role as the primary text for Islamic calligraphy, then, it is important that readers have some idea of its content and form. The Koran is probably the most important topic in Islamic studies, and there is a vast literature about it. It not only forms the longest single article in the second edition of the *Encyclopaedia of Islam*, but has also recently become the subject of its own encyclopedia, a reference tool devoted more to the content of the scripture than to its form.³⁰ Even the text itself can be approached in many ways, as shown by the recent spate of articles by the Russian scholar Efim Rezvan, who has written on various aspects, ranging from its ecstatic dimensions to its role as a signifier of social relations in late seventh-century Arabia.³¹ This discussion is intended only as an introduction, focusing on the formal and physical realizations of the Koranic text and its relevance to Islamic calligraphy.

As a book, the Koran is comparable in length to the New Testament. It contains some seventy-seven thousand words arranged in 114 chapters (Arabic *sura*) of varying length. It opens with the *Fatiha*, a beautiful short prayer that serves as an invocation in many situations:

In the Name of God, the Merciful, the Compassionate
 Praise belongs to God, the Lord of all Being
 the All-merciful, the All-compassionate
 the Master of the Day of Doom
 Thee only we serve; to Thee alone we pray for succour.
 Guide us in the straight path
 the path of those whom Thou hast blessed,
 not of those against whom Thou art wrathful
 nor of those who are astray.³²

In codices this chapter was frequently enhanced by splendid illumination across a double page (e.g., Figure 8.2) or as the right half of a double page (e.g., Figures 1.8, 1.9, 10.3, 11.2, 11.3, 12.11, and 12.15). Since it also served as a talisman, this chapter was scrawled on potsherds or bones.³³ It was also penned in special scripts as a calligraphic exercise (Figure 10.10).

The other chapters of the Koran follow in roughly descending order of length, from the nearly three hundred verses of the second chapter to the final two chapters, which are short prayers of a few lines each.³⁴ Pages with these concluding short chapters are also singled out for rich illumination (e.g., Figure 5.7 and 12.5). The chapters of the written text of the Koran are thus arranged neither in the order in which they were revealed nor in a narrative sequence.

Neither the chapter names nor the verse numbers were part of the original revelation; rather, they were coined later to help distinguish sections of the text. Muslims traditionally identify the chapters by name. They often use a catchword, an unusual word or thought that occurs in the chapter. The second (and longest) chapter in the Kōran, for example, is called the Cow (Surat al-Baqara), from the parable of the heifer that God commanded Moses to sacrifice, mentioned in verses 67 to 71. For purists, this should be written precisely as 'the chapter in which the cow is mentioned,' and such an exact system of nomenclature was occasionally used in fine manuscripts, such as the large codex made by a royal scribe at Hamadan in 559/1164 (Figure 6.9) and the magnificent copy on paper dyed purplish-brown that the Hafsid sultan Abu Faris endowed to the mosque of the Qasba at Tunis in 805/1407 (Figure 9.12).

Since the chapter names were adopted by believers only after the revelation, it is no surprise that they have not been accepted uniformly. The seventeenth chapter, for example, is usually known as Bani Isra'il (the Children of Israel), but is sometimes called al-Isra' (the Night Journey) from Muhammad's night journey mentioned in the opening verses. Some commentators took their names from the opening words in the chapter, regardless of their meaning. The great commentator al-Tabari (d. 923), for example, called the one hundred and fifth chapter *a-lam tara* (literally, did you not see) after the very first words.³⁵ Most people, however, call it the Elephant (*al-Fil*), after the main reference in it to the victory over the people of the elephant, thought to refer to the Meccans' defeat of the Abyssian prince Abraha, who c. 570, like Hannibal against the Romans, invaded with an army of elephants. Analysis of these variant names may help to distinguish different traditions, and descriptions of an individual manuscript should properly include the variant chapter names used in it.

The numbering of the verses within the chapters is equally problematic. Already from the tenth century scholars were arguing over variant readings of the Koranic text (see Chapter 4 for further details about some of these readings), and the addition of a pause between phrases could allow for the insertion of an extra verse number. Some readers counted the basmala – the introductory phrase *bism allah al-rahman al-rahim* (in the name of God the Merciful, the Compassionate) that precedes all but one chapter (the exception is Chapter 9, al-Tawba, Repentance) – as a verse; most did not. The debates became so heated that from the tenth century calligraphers frequently added frontispieces specifying the reading they had used (Figure 5.9) and/or the number of verses in it (Figure 6.9).

Modern readers still do not agree on the numbering of verses. Montgomery Watt's classic study of the Koran contains an appendix with two numbering systems common in modern times: one found in Gustav Flügel's 1834 edition of the text, traditionally used by Western scholars in the nineteenth and early twentieth centuries,

and the other used in the standard Egyptian text printed in Cairo under King Fu'ad I, the edition sanctioned by Muslim authorities.³⁶ The bilingual edition of the Koran most readily available in English, the one done by Yusuf Ali, uses a third system with a few variants.³⁷

In contrast to Muslims, Western scholars have traditionally used a numerical system to cite Koranic chapter and verse. They adapted the model for citing Biblical texts, designating the chapter with a Roman number and the verse with an Arabic numeral (e.g., II:255). They chose a numerical system in part to avoid the variations in chapter names. The numerical system was also in keeping with the taxonomic tradition popular in the West since the age of Darwin, making the study of the Koran seem more scientific and less devotional.

But this numerical system too has problems. Roman numerals are clumsy, and it is easy to drop one digit of longer numbers (XVIII, for example, often gets mistakenly truncated to XVII). Furthermore, the visual aspect privileges the Roman system of lettering. For simplification here, I have used a modified Western system, with 2:255 meaning the 255th verse of Chapter 2, following the numbering system used in the Standard Egyptian edition of the Koran.³⁸ The standard Arabic concordance to the Koran uses a similar system,³⁹ although many Muslims would cite the same verse as Surat al-Baqara, 255 or Ayat al-Kursi (Throne Verse).

In Koran manuscripts, the name of the chapter and the number of verses were typically accompanied by the word Mecca or Medina, to indicate the place of revelation. None of this information is part of the Koranic revelation, and to show that it is of human, not divine, inspiration, Muslim calligraphers wrote it first in a different color of ink and later in a different script than that used for the main text of the revelation. Anglo-Saxon calligraphers, beginning in the eighth century at Wearmouth-Jarrow and elsewhere, developed a similar hierarchy of scripts to distinguish text from commentary, typically using uncial for the former and minuscule for the latter. By the ninth century they had evolved a more elaborate system, using a display script for headings and colophons; a secondary one to distinguish the beginning of a text, chapter or paragraph; and a tertiary one to indicate the beginning of a thought or sentence.⁴⁰

To underscore the point that this information about chapter name and verse count did not belong to the Koranic text, it was set off in boxes, often with palmettes extending into the margin. In this way, the reader flipping through the codex would instantly recognize the divisions between chapters. These boxes typically occur as headings to the chapter, but sometimes they were appended at the end of a chapter and indicate the subject of the preceding chapter, as is the case in the Hafsid Koran manuscript (Figure 9.12). The difference between headings and footers is known in other book traditions: it parallels the different traditions followed by American and some European, particularly French, presses, which place the table of

contents at the beginning or the end of the volume, respectively. For the study of Islamic calligraphy, these pages with headings/footers are particularly important as they illustrate the hierarchy of scripts that a single calligrapher had mastered at a particular time. In the same way calligraphers often set off the opening of a literary or theological work in another script (Figures 5.11 and 8.14).

Because of the unique arrangement of the Koran, it is impossible to classify its contents into standard literary types, such as legends, parables, short stories, and the like. The text contains various types of material, including prayers, oaths, regulations, 'sign' passages (in which certain aspects of nature and human life are 'signs' [Arabic *ayat*] of God's omnipotence and benevolence towards man), 'say' passages (in which believers are told to say something), and finally narratives. Although the easiest to remember, the narrative elements in the Koran actually form a very small part of the whole. Furthermore, they are not read continuously. Parts of the story of Moses, for example, are scattered over forty-four different passages. Those reared in the Biblical tradition traditionally criticized this segmental approach as non-linear, but scholars have recently pointed out its positive virtues as the fragmented mode of composition allows the text to 'achieve its most profound affects, as if the intensity of the prophetic message were shattering the vehicle of human language in which it was being communicated.'⁴¹

Most of the narratives are versions of traditional stories found in other Near Eastern cultures. For example, the text several times mentions the creation of the world in six days and the throne from which the universe is controlled creation of the world in six days. One of the most lyrical evocations of God's majesty is the Throne Verse or Ayat al-Kursi (2:255):

God
there is no god but He, the
Living, the Everlasting.
Slumber seizes Him not; neither sleep;
to Him belongs
all that is in the heavens and the earth.
Who is there that can intercede with Him
save by His leave?
He knows what lies before them
and what is after them,
and they comprehend nothing of His knowledge
save such as He wills.
His Throne comprises the heavens and the earth;
the preserving of them oppresses Him not;
He is the All-high, the All-glorious.

This passage was a particular favorite, often inscribed on objects and buildings and still popular with calligraphic artists.

Along with the concept of divine omnipotence, the Koran maintains the concept of man's responsibility for his actions. On the Day of Judgment, those who have acted rightly will gain Paradise and its pleasures, while those who have acted wrongly will earn eternal fire and its chastisements. Paradise is described in the Koran as a verdant garden through which rivers flow and in which the residents, adorned with jewels and rich clothing, recline on silken couches beneath God's throne. By contrast, the damned endure a variety of torments in Hell's burning furnaces, where they must eat fruits shaped like devils' heads. Much of the Koran's message can be summed up in the beautiful ante-penultimate chapter (112) known as Ikhlas (Sincere Religion), one of the first verses to be revealed in the early Meccan period:

In the Name of God, the Merciful, the Compassionate
 Say: 'He is God, One
 God, the Everlasting Refuge
 who has not begotten, and has not been begotten,
 and equal to Him is not any one.'

This chapter too was a favorite, used already by the Umayyads in the late seventh century on their first epigraphic coins (Figure 3.4) and in the mosaic inscription around the interior of the Dome of the Rock and perennially popular on amulets and talismans.

Copies of the Koranic text are never illustrated. By this I mean that they are never accompanied by pictures. There are several reasons for this absence of illustration. In part, it is due to the relatively small role of narrative in the text and the pre-eminence there of moral and legal themes that do not lend themselves readily to pictorial representation. Furthermore, illustrations were not needed to tell the story of Muhammad's mission, as he, unlike Christ, was human, not divine, and his life was not part of the scripture. More importantly, illustration came to be seen by Muslims as usurping God's prerogative of creation, and it was considered blasphemy to add illustrations to God's sacred word. As a consequence, the exquisite transcription of God's word became the most important vehicle for aesthetic outpouring in Islamic civilization, and one that acquired sacred overtones and special resonance. The sanctity of the word also had further implications for its reproduction by mechanical means (see further, Chapters 11 and 13).

The fine calligraphy used to transcribe the scripture was often embellished with fancy illumination, by which I mean geometric, floral, or other non-figural decoration (as distinct from illustration, meaning embellishment with pictures).⁴² Illumination was commonly used not only to divide verses and chapters, but also for full-page frontis- and finispieces (e.g., Figure 5.9). One fragmentary manuscript found hidden in the mosque at San'a in the Yemen has a unique frontispiece apparently representing two mosques (or two

views of the same mosque), though without people.⁴³ The decoration in all other frontis- and finispieces is exclusively geometric and floral.

In the seventh century Insular artists developed such full-page decorations on the left-hand page, or verso, of a leaf. They perceived Latin in graphic, not oral, terms, and were concerned with the content, rather than the appearance, of the text. Along with new forms of punctuation and script, such 'carpet-pages' were part of their 'grammar of legibility,' serving to indicate a new text or a major division.⁴⁴

In Koran manuscripts, illumination was also used to mark other divisions. Although compiled in a single text, the revelation was often broken into parts to aid in recitation. The most popular division comprised thirty parts (Arabic *juz*, pl. *azja*; Persian *si-para* [30 parts] or simply *para* [part]) to correspond to the days of the month. This division was current already by the ninth century, as in the famous manuscript made for Amajur (Figure 4.2) and a similar one endowed by 'Abd al-Mun'im to the mosque of Damascus in 298/978. This format was common throughout the Islamic lands, from Morocco to China (Figure 9.3). These thirtieths, in turn, were sometimes divided into four parts, including one-quarter (*al-rub*), one-half (*al-nisf*), or three-quarters (*al-thalatha*). The sixtieths were known as *hizb* (group or band). The division into sixtieths, while not popular in India, was common in the Maghrib and is said to have been a more recent division than the *juz*.⁴⁵

Another common way of dividing the Koran is by sevenths (*manzil*, literally station), to correspond to days of the week. This division was also known from early times and is found in codices made over a wide geographic swathe. It was used, for example, in the so-called Blue Koran, attributed to Tunisia in the tenth century (Figure 4.10), the parchment copy made at Palermo in 372/982–83 (Figure 5.4), the paper copy transcribed by 'Uthman ibn Muhammad at Bust in 505/1111–12 (Figure 6.6), and the paper copy transcribed by Ibn al-Wahid for the Mamluk amir Baybars (Figure 8.13). Nevertheless, it does not seem to have been as popular as the thirty-part division.

The long text could also be divided in two volumes. This was usually a functional division adopted also for practical reasons. In east Africa, for example, the two halves were set in niches on the sides of a doorway of a house to symbolically protect those entering, and older manuscripts were sometimes split into two volumes for this purpose (see Chapter 12 and Figure 12.12). Similarly, publishers sometimes divide the text into halves, as in the original edition of A. J. Arberry's English translation, which was then reprinted in paperback in a single volume.⁴⁶

These divisions into parts are often marked in the margin, along with similar indications for pauses, places of prostration, and the like. Larger divisions into thirtieths, sevenths, or halves can also be marked by an illuminated page or pages (e.g., Figure 9.8), but often the

manuscript was divided into that number of volumes. This was the case not only with large presentation copies of the Koran used for public recitation in the mosque, but also with smaller copies that were then stored in a single box (Figure 7.8).

For orthodox Muslims like the Damascene scholar and polemicist Ibn Taymiya (d. 1328), the Koran is God's literal word and therefore can be read only in the majestic and glorious Arabic language in which it was revealed. The necessity of reading the Koran in Arabic means that all believers should learn Arabic in order to do so. This requirement has had several important ramifications for the way in which Islamic civilization developed. It has created a linguistic bond among believers, particularly as Islam spread beyond the boundaries of Arabia to regions inhabited by speakers of other languages. Having learned to use Arabic as the language of religion, they also used it as a language of literature, science, commerce, and social intercourse. The primacy of Arabic as the language of God's revelation has also helped to preserve the purity of the Arabic language, for Muslims constantly call to mind the noble and magnificent words and phrases of the Koran. Although the Arabic language has evolved over the fourteen centuries since the Koran was revealed, it has not changed as much as English has in the six centuries since the time of Chaucer. Finally, the primacy of the Arabic language has encouraged the spread and use of the Arabic script, which is known from the shores of the Atlantic to the Pacific to render a variety of languages, including not only the original Arabic, but others ranging from Persian and Ottoman Turkish to Malay.

Despite the necessity of learning the Koran in Arabic, there have been many attempts to render it into other languages. The English monk Robert of Ketton made the first translation into a Western language in 1143, translating the Arabic into medieval Latin for Peter the Venerable, abbot of the monastery of Cluny, who wanted to understand the Koran so as to counter it.⁴⁷ Robert's autograph manuscript survives in the Bibliothèque de l'Arsenal in Paris, but it took exactly four centuries for the work to be printed.⁴⁸ The first edition was printed at Basel in 1543 by Theodor Buchman or Bibliander, a Protestant divine who served as professor of theology at Zurich. The publication was quite controversial: when it first appeared, the copies were seized and the printer arrested. Only after lengthy negotiations with the city's authorities and the intervention of several Reformers, notably Martin Luther, was the work released. Nevertheless, it was a popular seller, and a second edition, with a preface by Martin Luther, was issued seven years later at Basel and Zurich.

For more than a century the printed edition of Robert of Ketton's Latin translation served as the basis for other translations of the Koran into modern European languages. The first was Andrea Arrivabene's Italian version of 1547 printed in Venice. The German theologian and traveler Salomon Schweigger produced a German edition at Nuremberg in 1616. Only in 1647 did anyone attempt a

translation into a modern Western language directly from the Arabic original: this was done by André du Ryer, a nobleman who had been French consul in Alexandria and Cairo, spent some time in Istanbul, and traveled widely in the region. It, in turn, served as the source for the first translation into English, *The Alcoran of Mahomet*, made by the Scotsman Alexander Ross and published in 1649.

George Sale's English version, published in London nearly a century later in November 1734, marks a watershed. Unlike Ross' translation of a translation, Sale worked from the original Arabic and rendered the text in a language familiar from the King James translation of the Bible. He also included copious notes based on the works of traditional Muslim commentators, especially al-Baydawi (d. 1286 or 1291) as well as a 'preliminary discourse' giving a brief but objective account of Islam. The scholarly importance and popularity of Sale's translation is evident from its numerous reprintings.⁴⁹

Many other English versions have appeared in recent years. Marmaduke Pickthall, an English novelist who spent many years in India where he converted to Islam, prepared the first translation by an English Muslim, and his book *The Meaning of the Glorious Koran: An Explanatory Translation* was approved by Muslim authorities in Egypt.⁵⁰ The renowned Orientalist A. J. Arberry, sensitive to the views of orthodox Muslims who hold that the Koran, which was revealed by God in Arabic, can be read only in that language, called his English version *The Koran Interpreted*.⁵¹ He translated the text in a sort of free verse, and his translations are the ones quoted in this book, although the usefulness of his translation is sometimes compromised since he used the Flügel rather than the standard Egyptian system of numbering and he did not separate individual verses.

Recent interest in Islam and Islamic civilization has sparked many other books that introduce the Koran to non-Muslims. Michael Sells' *Approaching the Qur'an: The Early Revelations* renders parts of the text in a version intelligible and accessible to modern Americans.⁵² It also comes with a CD-rom containing recitations by nine distinguished reciters, thereby underscoring the importance of the oral and aural version alongside the written and read one. Michael Cook's *The Koran: A Very Short Introduction*, despite its tiny size, contains many good ideas in a readable form.⁵³ Furthermore, he emphasizes visual aspects of the written text.

Although sometimes considered substitutes or paraphrases, translations of the Koran have long been necessary as Islam spread to non-Arabic-speaking regions. Bilingual copies, with the Arabic text and a translation/paraphrase in the vernacular language, were used in proselytizing, and calligraphers worked out several different methods of combining the text in two languages. The earliest and most common method is the interlinear text, in which one line of Arabic is followed by one line in the vernacular language, which is often distinguished by a different color of ink and/or size or style of script. The first interlinear copies seem to have been made in Arabic and Persian and

may well date as far back as the tenth century,⁵⁴ although extant manuscripts survive only from several centuries later (Figure 1.6).⁵⁵ To make the correspondence between text and translation even clearer, the calligrapher sometimes wrote each word or phrase of the vernacular translation or commentary diagonally below the words or phrases in Arabic.⁵⁶ In this way, not only size and script, but also orientation on the page distinguish text from translation.

This technique of interlinear translation was used not only for Persian but also for many other languages written in Arabic script. Manuscripts from the fourteenth century in Chaghatay, or eastern, Turkish, are sometimes combined with a translation into Persian (Figure 9.2). With the expansion of Islam across the Indian Ocean and into sub-Saharan Africa, bilingual manuscripts were made in other languages, as, for example, a seventeenth-century copy with Kanembu, a dialect of Kanuri still spoken by parts of the Bornu population around Lake Chad (Figure 12.15). Cook illustrates several later examples with other languages in his small handbook on the Koran.⁵⁷

The interlinear technique could also be used with different styles of script. The Koran scholar Arthur Jeffery mentioned a lithographed copy printed in Tehran in 1323/1905–6 that had a line of kufic script with interlinear *naskh*.⁵⁸ Clearly the kufic script was considered authentic but unreadable to many, so the text was also written out in the more familiar rounded script.

There were also several other methods of combining Arabic and a vernacular language. A second one was to pen the translation in the margin. In this case too, the vernacular text was often written in diagonal lines. Placement and orientation on the page, along with size and script, thus distinguish text, considered more important, from translation or commentary.

A third, and more unusual, method of transcribing bilingual Koran manuscripts entails interspersing both texts in the same line, with one phrase in Arabic followed by a translation or explanation in the vernacular language. This technique allows the teacher to read the text aloud in Arabic, while the student seated beside him can follow the meaning in the vernacular. This unusual technique was adopted by the Ottomans, as shown by a manuscript in the Ghassan Ibrahim Shaker Collection (Figure 1.7).⁵⁹ On stylistic grounds the manuscript is attributed to the late sixteenth century, but a note added at the end says that it copies an earlier manuscript transcribed by Ghazi ibn Mahmud at the end of Jumada I 736/15 January 1336. The title page gives the name of the work, a Turkish translation (*tarjuma*) of the commentary (*tafsir*) entitled *Sharif al-asdaf* (the Noblest of Pearls). Both Arabic text and Turkish translation are written in the same *naskh* script, but the Arabic is distinguished by a red horizontal slash over the words. The bilingual text was intended to be used in proselytizing, for the given name of the calligrapher, Ghazi, was carried in fourteenth-century Anatolia by those who distinguished themselves in the war against infidels.⁶⁰

Although bilingual Koran manuscripts were probably made from the tenth century, this is one of the earliest dated copies to survive. It was a luxury manuscript, of large size, with extensive gold, and a Persian translation in small script between the Arabic text in large script. The manuscript was later endowed to the shrine of Ahmad Jami, as indicated by the endowment text added at the top and bottom of this page.

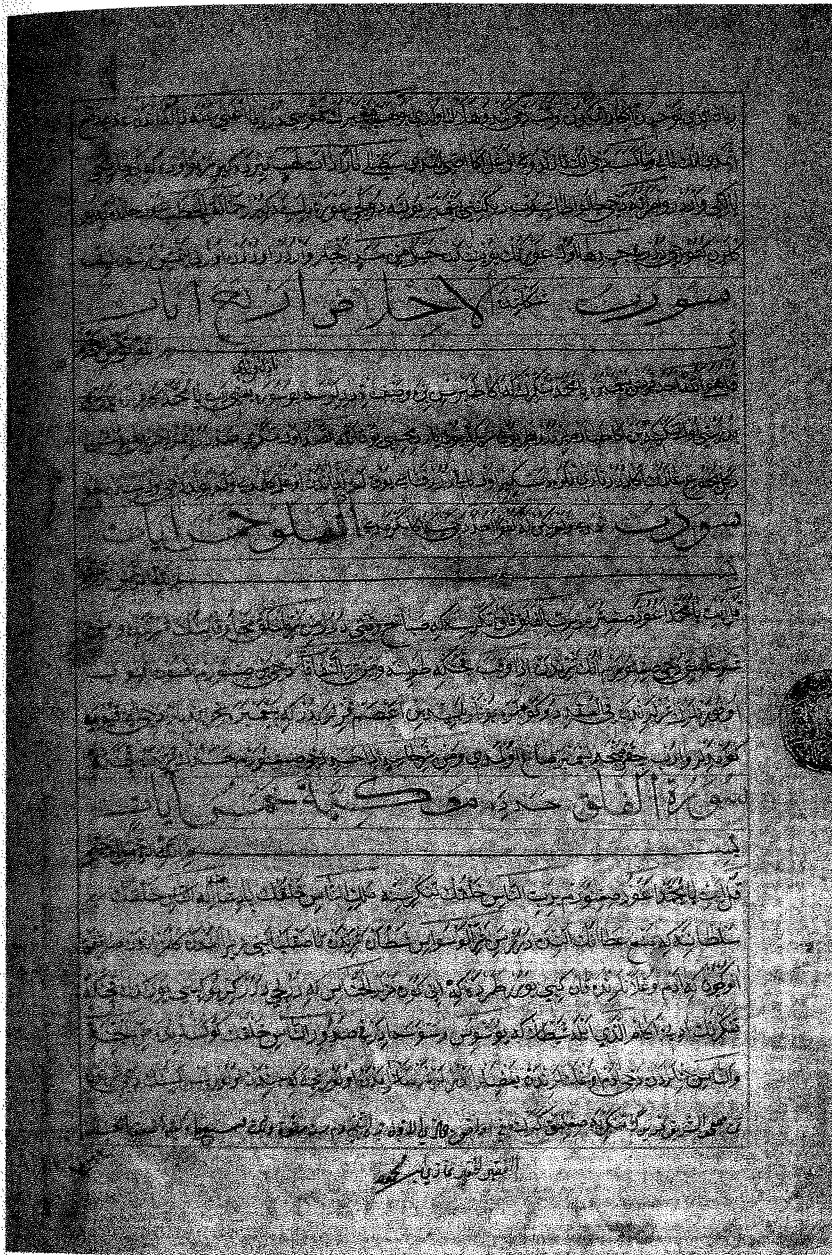


Figure 1.7 Page with Suras 111:1–114 and the colophon from a single-volume Koran manuscript with twenty-three lines per page and a Turkish translation of the commentary Sharif al-asdaf.

Bilingual Koran manuscripts were needed for proselytizing, and calligraphers worked out several methods of combining text with translation and/or commentary. The vernacular translation was often written between the lines or in the margin, but this manuscript, copied in the late sixteen century from an original dated Jumada I 736/December 1335–January 1336, shows an unusual third method, in which the Turkish translation is interspersed within the Arabic text. Text is distinguished from translation by a red slash over the Arabic.

This technique of combining two languages within the same line works with those that read from right to left, but to produce translations in other languages that read from left to right, scholars introduced the multi-column format. This layout, which aids a philological reading of the text, was adopted by humanist scholars. The first known example is that made in 1480–1 by Flavius Mithridates, a Jewish convert to Christianity. He produced a Latin translation

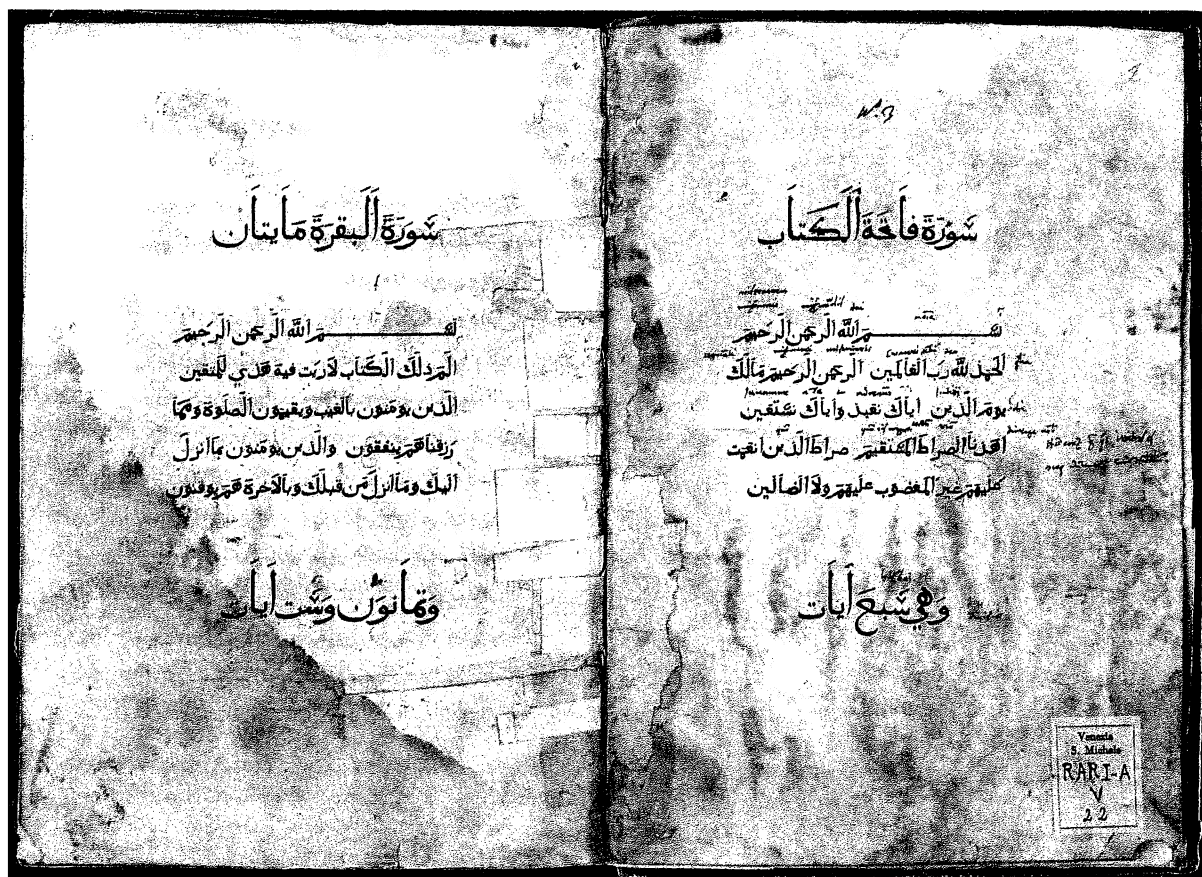


Figure 1.8 Opening double page with Suras 1–2:4 from an edition of the Koran printed by Paganino and Alessandro Paganini in 1537–8.

This is the earliest printed copy of the Koran known.

Intended for Christian missionaries, it was neither a commercial nor an evangelical success, perhaps because it did not distinguish between certain letters of the Arabic alphabet and used an ungainly typeface. All copies were thought to have perished until the 1980s when a single remaining one was discovered in Venice.

of Suras 21 and 22, which he had copied as a sumptuous manuscript in which text is set beside translation in facing columns.⁶¹ This multi-column layout became the typical format used in modern printed versions, which have one column or page of text in Arabic facing one in another language. This is the format adopted in Yusuf ‘Ali’s often reprinted edition, which includes not only text and English translation but also a commentary at the bottom (see Figure 1.10 below).⁶²

Commentaries on the Koran, to be distinguished from translations or interpretations, were typically written on the same page with the text, but again using a different color of ink and a different, usually smaller, script. Most commentaries, however, are much longer than the Koranic text itself, and commentaries were often written in a small hand in the margin, as with interlinear bilingual manuscripts made in the age of empires in Kashmir (Figure 12.5) and near Lake Chad (Figure 12.15). The calligrapher could also divide the page horizontally, using one part for the text and the other for the commentary. This is the case with a manuscript transcribed by one Muhammad ibn Muhammad al-‘Amid al-Imam Awhad al-Din in

630/1232–3 (Figure 6.14), which has the Persian commentary transcribed in a small *naskh* above the Koranic text written in a large *thuluth*. Similarly, in Yusuf Ali's modern printed edition, the notes are printed in a smaller font at the bottom of the page.

All of these methods were used by calligraphers to visually distinguish divine revelation from extraneous text, be it headings, translations, interpretations, or commentaries. The sacredness of the scripture led to its transcription manually in a beautiful hand, and this sanctity explains why handwritten copies remain popular and why printed editions of the Koran were so slow to be accepted. The first ones were made by non-Muslims.

The earliest was produced by the Venetian brothers Paganino and Alessandro Paganini in 1537–8 (Figure 1.8).⁶³ Printed as a private edition and probably intended for Christian missionaries, it used an ungainly typeface that did not distinguish between certain letters of the Arabic *abjad*, such as *dal* and *dhal*. Note, for example, that the words *al-din* (Figure 1.8a) and *alladhina* (Figure 1.8b) are printed in exactly the same way. Chapter titles are particularly graceless, with distorted proportions between low letters and tall strokes. The script also exemplifies the difficulty typesetters had in reconciling the exigencies of setting type on a line with the piling up of letters in Arabic script. Note, for example, the awkward spacing and piling up of the phrase *ihdina al-sirat al-mustaqim* from the fourth line of text on the right (Figure 1.8c). The suffix *-na* floats and is crowded by the initial *alif* of the next word. In *al-mustaqim*, the letters are plunked down next to each other in a flat line, with a large and ungainly hook for *sukun*. Ligatures are extremely awkward, with a sharp angle, especially when a toothed letter like *ya'* is joined to *ra'* or final *nun*, as in *ghayr* or *al-dalin* (Figure 1.8d), the last word of the Fatiha on the right page. The 1537 Paganini edition was neither a commercial nor an evangelical success, and all copies were thought to have perished until the 1980s when a single remaining one was discovered in Venice.

It took two and a half centuries before Muslims themselves were willing to produce a printed edition of the Koran, although this too was something of an outsider's work: the first edition printed by Muslims for Muslims (Figure 1.9) was made at St Petersburg in 1787.⁶⁴ Intended for the new population of Muslims in Russia, it was made at the behest of Catherine the Great, who had occupied and annexed the Crimean Khanate four years earlier, thereby incorporating many Kirghiz into her empire. Distributing copies of the Koran, while sometimes explained as a mark of her tolerance, also fitted her expansionist plans: she was plotting to expel the Turks from Istanbul and restore Byzantine rule there and to wrest India from Britain's ever-tightening grip. This edition, done at a time when printing the scripture was still forbidden in the Ottoman empire, thereby helped to curry favor with Muslims.⁶⁵ Containing a marginal commentary by Mulla 'Uthman Isma'il, the text was set in a flat type that corrected the errors in letters



Figure 1.8a



Figure 1.8b



Figure 1.8c



Figure 1.8d

Figure 1.9 Opening page with Sura 1 from an edition of the Koran printed at St Petersburg in 1787.

This is the opening page to the first edition of the Koran printed by Muslims for Muslims. It was made under the auspices of Catherine the Great, who had just annexed the Crimean Khanate, thereby incorporating many Muslims into the Russian empire. This edition was done at a time when printing the scripture was still forbidden in the Ottoman empire.

الدِّينِ ط

Figure 1.9a

الَّذِينَ

Figure 1.9b

اهْدِنَا الصِّرَاطَ الْمُسْتَقِيمَ

Figure 1.9c

بِسْمِ

Figure 1.9d



found in the Paganini edition (Figure 1.8). The words *al-din* (Figure 1.9a) and *alladhina* (Figure 1.9b), for example, are correctly punctuated in the St Petersburg edition, with a dotless *dal* and a dotted *dhal*. The spacing is more uniform written, as in the phrase *ihdina al-sirat al-mustaqim* (Figure 1.9c), and rosettes have been added to divide verses. Nevertheless, ligatures still presented a problem. The extender between *sin* and *mim* in the basmala (Figure 1.9d) is set in at mid-height so the final *mim* floats in space. Chapter titles and supplementary information are not set off in a different display script, but printed

in a version of the same script that is, unusually, smaller, rather than larger, than the text script. Vocalization is set at an even more uniform height than that used in the Ottoman styles of *naskh* (e.g., Figures 11.2 and 11.4). The overall aspect is lifeless.

Despite its awkward physical appearance, this edition was a success: it was reprinted several times until 1798 in St Petersburg and then from 1803 to 1859 at Kazan, the city of the Volga that had served as the capital of the khans of Kazan. It is estimated that as many as one hundred and fifty thousand copies were printed, and it played a role in the centuries-long process of creating a uniform text of the Koran.⁶⁶ Conceived as a colonial endeavor, the Kazan Koran was also a commercial commodity carried by Tatar merchants not only throughout Central Asia but to India and even the Hijaz.

Only in the twentieth century was the Koran at last printed on a large scale in the Muslim world. The edition produced by the Official Printing House at Bulaq, Cairo, in 1342/1923–4 marked another watershed in the history of the Koran. The printed edition was put together after a decade of collaboration by Muslim specialists in the Koran not by collating texts and fragments, but rather from the oral tradition.⁶⁷ The text does not use traditional orthography, but relied on the oral and written traditions of the 'science of readings' (*'ilm al-qira'at*). It adopted the version of the text canonized by Hafs (d. 805) following 'Asim, the most common reading used in many regions, although that of Warsh (d. 812) following Nafi' is popular elsewhere in North Africa.⁶⁸ The Cairo edition was done under the patronage of Fu'ad I, partly to promote unity in a Muslim world rocked by setbacks such as the abolishment of the sultanate in Turkey, and with its official sanction, the Cairo edition achieved canonical status. It is now generally accepted as the standard version and has been reprinted many, many times.

Despite the widespread availability of the Cairo edition, the idea of printing the Koranic text remained controversial into the twentieth century. When Abdullah Yusuf Ali prepared his bilingual Arabic-English edition in 1934 (Figure 1.10), he did not use type for the Arabic, but commissioned special calligraphy, specifically asking the calligrapher Pir 'Abdul Hamid to separate words, place vowels close to the letters to which they relate, and number verses so that they could be juxtaposed to their English equivalents. The uniformly set vowels of printed texts such as the St Petersburg edition had clearly jarred aesthetic sensibilities. Pir 'Abdul Hamid's calligraphy was then transferred to photographic blocks prepared by Master Muhammad Sharif. Yusuf Ali followed this elaborate procedure, he tells us in the preface to the first edition, because 'calligraphy occupies an important place in Muslim Art, and it is my desire that my version should not in any way be deficient in this respect.'⁶⁹ Typeset Arabic, then, was still considered inferior to handwritten calligraphy. Yusuf Ali's edition fulfilled his aims: it has been reprinted many times and is widely available. The aversion to Arabic type, especially for scripture,

S. LXII. 2-6.]	1546	1547	[S. LXII. 6-9.
They had been, before, In manifest error :—	كَانُوا مِنْ قَبْلُ لَكُمْ ضَالِّينَ	If ye think that ye Are friends to God, To the exclusion of (Other) men, then express Your desire for Death, If ye are truthful ! ⁵⁴⁵⁹	إِنْ زَعَمْتُمْ أَنَّكُمْ أَوْلِيَاءُ لِلَّهِ فَلْيَمُوتُوا مَوْتَهُمْ فَلْيَمُوتُوا مَوْتَهُمْ فَلْيَمُوتُوا مَوْتَهُمْ
3. As well as (to confer All these benefits upon) Others of them, ⁵⁴⁵⁵ who Have not already joined them : And He is Exalted In Might, Wise.	وَمِنْهُمْ لَمْ يَكُنْ لَهُمْ وَعْدٌ مِنْهُ وَعْدٌ مِنْهُ	7. But never will they Express their desire (For Death), because of (The deeds) their hands Have sent on before them ! And God knows well Those that do wrong !	وَلَا يَمُوتُونَ أَمَّا بِمَا كَانُوا يَعْمَلُونَ وَاللَّهُ عَلِيمٌ بِالظَّالِمِينَ
4. Such is the Bounty of God, Which He bestows On whom He will : ⁵⁴⁵⁶ And God is the Lord Of the highest bounty.	وَاللَّهُ ذُو الْفَضْلِ الْعَظِيمِ	8. Say : " The Death from which Ye flee will truly Overtake you : then will Ye be sent back To the Knower of things Secret and open : and He Will tell you (the truth, ⁵⁴⁶⁰ Of) the things that ye did ! "	هَـ كُنْ لِلَّهِ الْوَيْلُ الْبَاقِي فَلْيَمُوتُوا مَوْتَهُمْ فَلْيَمُوتُوا مَوْتَهُمْ فَلْيَمُوتُوا مَوْتَهُمْ
5. The similitude of those Who were charged With the (obligations Of the) Mosaic Law, But who subsequently failed In those (obligations), is That of a donkey ⁵⁴⁵⁷ Which carries huge tomes (But understands them not). Evil is the similitude Of people who falsify The Signs of God : And God guldes not People who do wrong.	هَـ مَثَلُ الَّذِينَ مُحَمَّدٌ الْقَوْمِ فَلْيَمُوتُوا مَوْتَهُمْ فَلْيَمُوتُوا مَوْتَهُمْ فَلْيَمُوتُوا مَوْتَهُمْ	SECTION 2. 9. ye who believe ! When the call is proclaimed To prayer on Friday ⁵⁴⁶¹ (The Day of Assembly),	هَـ يَا أَيُّهَا الَّذِينَ آمَنُوا إِذَا دُعِيَ لِلصَّلَاةِ مِنْ يَوْمِ الْجُمُعَةِ
6. Say : " O ye that Stand on Judaism ! ⁵⁴⁵⁸	هَـ قُلْ يَا أَيُّهَا الَّذِينَ آمَنُوا		

⁵⁴⁵⁵ Others of them : refers to other persons or peoples who may be ignorant, (i.e., others than those among whom the holy Prophet came as an apostle. In other words his Message is for his Arab people and his non-Arab contemporaries as well as those who live in other ages, and have no personal contact with him or his Companions.

⁵⁴⁵⁶ That is, according to His wise Will and Plan, and also as a result of His unbounded generosity to all.

⁵⁴⁵⁷ The Children of Israel were chosen as special vehicles for God's Message early in history. When their descendants corrupted the Message and became guilty of all the abominations against which prophets like Isaiah inveighed with such zeal and fire, they merely became like beasts of burden that carry learning and wisdom on their backs but do not understand or profit by it.

⁵⁴⁵⁸ Standing on Judaism is a very different thing from following the Law and Will of God. An arrogant claim to be a chosen people, to be the exclusive possessors of divine teaching, to be exempt from any punishment for breaches of the divine law, (cf. ii. 88), is presumptuous blasphemy. It may be Judaism, but it is not in the spirit of Moses.

⁵⁴⁵⁹ Cf. ii. 91-96. If they claimed to be special friends of God, why do they not eagerly desire death, which would bring them nearer to God? But of all people they are the most tenacious of this life and the good things of this life! And they know that their grasping selfish lives have run up a score of sin against them, which will meet its recompense.

⁵⁴⁶⁰ Before God's Judgment-Seal, when Judgment is established, we shall see the full inwardness of all deeds in this world. The veil of illusion and delusion will be torn off. All our secret motives will be laid bare. The results of all our little plots and plans and their reactions on our spiritual and eternal welfare will be clearly visible to us. All make-believe will disappear.

⁵⁴⁶¹ Friday, "the Muslim Sabbath", is primarily the Day of Assembly, the weekly meeting of the Congregation, when we show our unity by sharing in common public worship, preceded by a *Khutba*, in which the Imam (or Leader) reviews the week's spiritual life of the Community and offers advice and exhortation on holy living. Notice the gradations of social contact for Muslims if they followed the wise ordinances of their Faith. (1) Each individual remembers God for himself or herself five or more times every day, in the home or place of business, or local mosque, or open air, as the case may be. (2) On Friday in every week, there is a local meeting in the central mosque of each local centre,—it may be a village, or town, or ward of a big city. (3) At the two 'Ids every year, there is a larger local area meeting in one centre, the *Id-gah*. (4) Once at least in a lifetime, where possible, a Muslim shares in the vast international assemblage of the world, in the centre of Islam, at the Meccan Pilgrimage. A happy combination of decentralisation and centralisation, of individual liberty and collective meeting, and contact at various stages or grades. The mechanical part of this ordinance is easy to carry out. Are we carrying out the more difficult part?—the spirit of unity, brotherhood, mutual consultation, and collective understanding and action?

Figure 1.10 Double page with Sura 72:2-9 in Arabic and English translation from the bilingual edition of the Koran prepared by Abdullah Yusuf Ali in 1934.

Yusuf Ali's bilingual edition of the Koran is the one most frequently used in America. The Arabic text is written in the right column, facing a verse-by-verse translation in English on the left, with commentary in a smaller type at the bottom. Script, size, and technique distinguish the Arabic text, which is not typeset, but was specially calligraphed by Pir 'Abdul Hamid and transferred to photographic blocks prepared by Master Muhammad Sharif. Even in the twentieth century it was deemed more suitable to transcribe scripture with handwritten calligraphy.

and the resulting insistence that it follow calligraphic norms created problems for designers of type fonts (see Chapter 13 for further details). This incident shows not only that many still desire to see the Koran as a handwritten document, but also that Arabic calligraphy continues to carry significant visual resonance for Muslims today, evoking sanctity and the divine revelation. Following a chapter on materials and tools, the remainder of this book traces the process of how calligraphers over the past fourteen hundred years developed different styles of Arabic script to write the sacred text and other

important works that were commensurate with the overarching importance of the Arabic language in the religion and the culture that that faith engendered.

Notes

1. Alan S. Kaye, 'Adaptations of Arabic Script,' in *The World's Writing Systems*, ed. Peter T. Daniels and William Bright (New York, 1996), 743–62.
2. Jane Turner (ed.), *The Dictionary of Art* (London, 1996): 'Mesopotamia,' §III, 5, is a convenient introduction to the reliefs. John Malcolm Russell, *From Nineveh to New York, the Strange Story of the Assyrian Reliefs in the Metropolitan Museum and the Hidden Masterpiece at Canford School* (New Haven, 1997), Appendix 6, gives a sample text. Irene Winter, 'Royal Rhetoric and the Development of Historical Narrative in Neo-Assyrian Reliefs,' *Studies in Visual Communication* 7, no. 2 (Spring 1981): 2–38, discusses the role of narrative.
3. See Chapter 13 for a further discussion of Arabic typography and its sometimes uneasy relationship with Arabic script.
4. By medieval times, however, writing in the West had lost its public function and become commemorative and symbolic rather than transmissive and expressive. On this change, see Armando Petrucci, *Public Lettering: Script, Power, and Culture*, trans. Linda Lappin (Chicago and London, 1993). The re-emergence of public writing in the southern Italian peninsula in the eleventh century might profitably be examined not only from the internal Western perspective, but also from the external view of connections with the nearby Islamic lands, where monumental epigraphy had flourished for centuries.
5. The bibliography on Roman script and epigraphy is vast; for a readable introduction written by someone who was trained as a sign-painter and calligrapher, see Edward M. Catich, *The Origin of the Serif: Brush Writing and Roman Letters* (Davenport, IA, 1991 [1968]). In his first work, *Letters Redrawn from the Trajan Inscription* (Davenport, IA, 1961), Catich redrew the letters in the Trajan inscription, now in the National Museum in Rome, to show its fundamental importance. His work was groundbreaking in using extant examples as a theoretical basis to explain the development of Roman lettering.
6. There are several good translations of the Koran into English. The one used here is Arthur J. Arberry, *The Koran Interpreted* (New York, 1955; R1973), the best at conveying the original tone without sacrificing accuracy. Arberry, however, used the older numbering system adopted by Gustav Flügel (ed.), *Corani Textus Arabicus* (Leipzig, 1842), but here I have cited verses according to the numbering system used in the Standard Egyptian edition. See below, for further details of the various numbering systems.
7. Munich, Bayerische Staatsbibliothek, C. arab. 464, fol. 36a. The painting is illustrated and discussed in Richard Ettinghausen, *Arab Painting* (Geneva, 1962), 138–40. The text was popular in the early fourteenth century: for other examples, see Stefano Carboni, 'The London Qazwīnī: An Early 14th-Century Copy of the 'Ajā'ib al-Makhlūqāt,' *Islamic Art* 3 (1988–9): 15–32; Stefano Carboni and Anna Contadini, 'An Illustrated Copy of al-Qazwīnī's *The Wonders of Creation*,' *Art at Auction* (1990): 228–33.

8. Li Si (d. 208 BCE), prime minister under Qin Shihuangdi, China's unifier and first emperor, is traditionally credited with designing small seal script (*xiao zhuan*), a script designed to replace the orthographic irregularities of the ones used on oracle bones and bronzes. This script represents the first standardized system of writing in China. Political unification was thus equated with unification of script, although practically such standardization did not occur for several centuries, as marked by the great codification on the Chinese writing system at the end of the first century CE in Xu Shen's dictionary *Shuowen jiezi* (Explaining Graphs and Analyzing Characters). For an introduction to Chinese writing systems, see the chapters by William G. Boltz, 'Early Chinese Writing,' in *The World's Writing Systems*, 191–9; Victor H. Mair, 'Modern Chinese Writing,' in *The World's Writing Systems*, 200–8. Lothar Ledderose, *Ten Thousand Things: Module and Mass Production in Chinese Art*, Bollingen Series (Princeton, 2000), Chapter 1, argues that script was the most powerful instrument to foster cultural coherence in China. Seal script, which was inscribed on stone stele throughout the realm, established a precedent that still carries political significance today; see Robert E. Harrist, 'Record of the Eulogy on Mt. Tai and Imperial Autographic Monuments of the Tang Dynasty,' *Oriental Art* 46, no. 2 (2000): 68–79.
9. See, for example, Shen Fu, Glenn D. Lowry, and Ann Yonemura, *From Concept to Context: Approaches to Asian and Islamic Calligraphy* (Washington, DC, 1986), which gives examples from all three traditions.
10. The article 'China, IV, 1: Calligraphy, Introduction' in Turner, *DoA*, evokes the sense of movement and personality with which Chinese calligraphy is imbued. For a theoretical overview, see further John Hay, 'The Human Body as a Microcosmic Source of Macrocosmic Values in Calligraphy,' in *Theories of the Arts in China*, ed. Susan Bush and C. Murch (Princeton, 1983), 88, where he notes: 'If there is a single, fundamental characterization of [Chinese] calligraphy, it is that of a line of energy materializing through the brush into the ink-traces.' These traces, called 'heart prints' or 'mind prints' (*xinyin*), reflect the gestures and inner disposition of the calligrapher. For a practical introduction to the physical aspects of Chinese writing, see Jean François Billeter, *The Chinese Art of Writing* (Geneva, 1990). The same is true in Japan; for a convenient and recent introduction to Japanese calligraphy, and the informative comments of two American collectors, see Miyeko Murase, *The Written Image: Japanese Calligraphy and Painting from the Sylvan Barnet and William Burto Collection* (New York, 2002), 11.
11. In the words of Lothar Ledderose, *Mi Fu and the Classical Tradition of Chinese Calligraphy*, Bollingen Series (Princeton, 1979), 29, one of the distinctive features of Chinese calligraphy is that 'the process of creation in all its consecutive phases is visible in the object.' One of the earliest known treatises on the subject, written in the fifth century CE, already accords the highest praise to calligraphy imbued with spontaneity (*ziran*). See Ledderose, *Ten Thousand Things*, 195 and n. 21. Lothar Ledderose, 'Chinese Calligraphy: Its Aesthetic Dimension and Social Function,' *Oriental Art* 17, no. 10 [October 1986]: 35–50, outlined three characteristics of Chinese calligraphy that distinguish it from other traditions, both European and Islamic: (1) the sense of time and movement imparted by the brushstrokes; (2) the technical and stylistic coherence achieved through the use of the same materials – paper or silk, brush, ink, and ink – over the last two thousand years and the same three types of script – regular (*kaishu*), semi-cursive (*xingshu*)

- and fully cursive draft (*caoshu*, literally, grass); and (3) its mode of transmission through canonical masterpieces that were inscribed by later masters.
12. Edoardo Fazzioli, *Chinese Calligraphy* (New York, 1987) is a convenient introduction to Chinese characters and their development from pictographs into ideograms.
 13. There are, of course, exceptions to this rule. Handscrolls with copies of the sutras, for example, contain solely calligraphy. Examples of Chinese Buddhist sutras from the Tang period (618–907) and earlier are typically written in columns of characters in finely written seal script, probably by professional calligraphers; see, for example, Fu, Lowry, and Yonemura, *From Concept to Context*, no. 6. More often, however, writing was added, either by the same artist or by a separate calligrapher, to illustrated scrolls. One of the earliest and finest examples of this format is the 'Admonitions of the Court Instructress' attributed to Gu-Kaizhi (341–402), now in the British Museum; see Fu, Lowry, and Yonemura, *From Concept to Context*, no. 4. The addition of writing to image is clear from the layout in which the lines of characters enframe the scenes. See the example of the handscroll with three letters by Wang Xizhi (itself a copy) comprised of only two lines but surrounded by a vast and complicated commentary added over the course of the centuries; Ledderose, 'Chinese Calligraphy,' 46–9 and fig. 16.
 14. Erica Cruikshank Dodd, 'The Image of the Word (Notes on the Religious Iconography of Islam),' *Berytus* 18 (1969): 35–62; Erica Cruikshank Dodd and Shereen Khairallah, *The Image of the Word: A Study of Quranic Verses in Islamic Architecture* (Beirut, 1981).
 15. The subject of aurality is not treated in this book, but is of growing interest. See, for example, Kristina Nelson, *The Art of Reciting the Qur'an*, Modern Middle East Series Sponsored by the Center for Middle Eastern Studies, the University of Texas at Austin (Austin, TX, 1985); William A. Graham, *Beyond the Written Word: Oral Aspects of Scripture in the History of Religion*, rep. 1987 (New York, 1993 [1987]); Michael Anthony Sells (ed.), *Approaching the Qur'an: The Early Revelations* (Ashland, OR, 1999); *Encyclopedia of the Qur'an*, ed. Jane Dammen McAuliffe (Leiden, 2001), 'Orality,' for an introduction to the vocal elements of the Koran and the importance of Koranic reading and recitation, *qira'a* and *tajwid*. For a brief overview of the three forms as applied to Koranic calligraphy, see Sheila S. Blair, 'Written, Spoken, Envisioned: The Many Facets of the Qur'an in Art,' in *The Qur'an in Art*, ed. Fahmida Suleman (London, forthcoming).
 16. One might contrast this right-to-left orientation in Arabic script to Jackson Pollock's large-scale poured paintings in which the designs flow from left to right, like writing in Roman script. For a concise description of his technique, see Francis V. O'Connor's article in Turner, *DoA*, 'Pollock, Jackson'.
 17. The best introduction to Mayan hieroglyphics is still Michael D. Coe, *Breaking the Mayan Code* (New York, 1992). See also the recent essay in Mary Miller, Simon Martin, and Kathleen Berrin, *The Courtly Art of the Ancient Maya* (New York, 2004).
 18. Daniels and Bright, *The World's Writing Systems*, 4. Arabic is the most widespread example of an *abjad*, and the term itself is derived from the first four letters of Arabic according to their historic order. All known *abjads* belong to the Semitic family of scripts, whose morphemic structure renders the denotation of vowels redundant in most situations. There are a few exceptions to the consonantal structure of the Arabic

- abjad*. The first and last two letters – *alif*, *waw*, and *ya'* – represent not only also the glottal stop, *w*, and *y*, but also the three long vowels (*a*, *u*, and *i*).
19. On the versatility of the Arabic script, see Peter T. Daniels, 'The Protean Arabic Abjad,' in *Humanism, Culture, and Language in the Near East: Studies in Honor of Georg Krotkoff*, ed. Asma Afsaruddin and A. H. Mathias Zahniser (Winona Lake, IN, 1997), 369–84. On its adaptation for writing Persian, see *EI/2*: 'Iran, iii Languages (f): New Persian.'
 20. Vlad Atanasiu, *De la fréquence des lettres et de son influence en calligraphie arabe* (Paris, 1999).
 21. On the mystical interpretation of letters, as on many other literary aspects of calligraphy, see the works by Annemarie Schimmel, including *Mystical Dimensions of Islam* (Chapel Hill, 1975), Appendix 1, and *Calligraphy and Islamic Culture* (New York, 1984).
 22. There are III *fā'ala*, IV *af'ala*, VI *tafā'ala*, VII *infa'ala*, VIII *ifta'ala*, IX *if'alla*, and X *istaft'ala*.
 23. These points were made recently by William Hanaway and Brian Spooner, *Reading Nasta'liq: Persian and Urdu Hands 1500 to the Present* (Costa Mesa, CA, 1995), 11–13.
 24. Lisa Volov (Golombek), 'Plaited kufic on Samanid Epigraphic Pottery,' *Ars Orientalis* 6 (1966): 107–34.
 25. Paul Saenger, *Space between Words, the Origins of Silent Reading, Figurae: Reading Medieval Culture* (Stanford, 1997). The change from oral to silent reading also brought with other changes in written form, such as punctuation. See M. B. Parkes, *Pause and Effect: An Introduction to the History of Punctuation in the West* (Berkeley and Los Angeles, 1993).
 26. Mashhad, Astan-i Quds, no. 6; Aḥmad Gulchīn-i Ma'ānī, *Rāhnamā-yi ganjīna-yi qur'ān* (Mashhad, 1347), no. 1; Ramaẓān-'alī Shākīrī, *Ganj-i hizār sāla-yi kitābkhāna-yi markazī-yi āstān-i quds-i riẓavī qabl wa ba'd az inqalāb* (Mashhad, 1367/1989), 36 and 38.
 27. Valery Polosin, 'Frontispieces on Scale Canvas in Arabic Manuscripts,' *Manuscripta Orientalia* 2, no. 1 (March 1996): 5–19; Valery Polosin, 'Muslim Bindings with *al-Khālidiyānī* Double Borders,' *Manuscripta Orientalia* 2, no. 2 (June 1996): 9–12; Valery Polosin, 'Unknown Numerical Aesthetics in the Design of Turkish Manuscripts,' *Manuscripta Orientalia* 7, no. 4 (December 2001): 30–6; Valery Polosin, 'Ibn Muqlah and the Qur'anic Mss of Oblong Format,' International Conference on the MSS of the Qur'ān (Bologna, 2002).
 28. Alexandre Papadopoulos, *Islam and Muslim Art*, trans. Robert Erich Wolf (New York, 1979).
 29. Alain Fouad George, 'The Geometry of the Qur'an of Amajur: A Preliminary Study of Proportion in Early Arabic Calligraphy,' *Muqarnas* 20 (2003): 1–16, has analyzed the geometric structure of the Amajur Koran and shown how the width of the penstroke determined the size of the letters and even the layout of the page. I remain less convinced by his attempt to connect the proportions with the Golden Rule.
 30. *EI/2*, 'Qur'ān'; *EQ*.
 31. Efim A. Rezvan, 'The Qur'ān and its World: I. The Problem of Reconstructing Ancient Arabian Cosmogonic and Anthropogenetic Lore,' *Manuscripta Orientalia* 2, no. 4 (December 1996); Efim A. Rezvan, 'The Qur'ān and its World: II. The Miracle of the Book (The Qur'ān and Pre-Islamic Literature),' *Manuscripta Orientalia* 3, no. 1 (March 1997); Efim A. Rezvan, 'The Qur'ān and Its World: III. "Echoings of Universal Harmonies" (Prophetic Revelation, Religious Inspiration,

- Occult Practice),’ *Manuscripta Orientalia* 3, no. 3 (September 1997): 11–21; Efim A. Rezvan, ‘The Qur’ān and its World: IV. “Raise not Your Voices above the Prophet’s Voice” (Society, Power and Etiquette Norms),’ *Manuscripta Orientalia* 3, no. 4 (December 1997): 35–44; Efim A. Rezvan, ‘The Qur’ān and its World: V. Language, the Unconscious and the Real World,’ *Manuscripta Orientalia* 4, no. 1 (March 1998): 26–39; Efim Rezvan, ‘The Qur’ān and its World: VI. Emergence of the Canon: The Struggle for Uniformity,’ *Manuscripta Orientalia* 4, no. 2 (June 1998): 13–54; Efim A. Rezvan, ‘The Qur’ān and its World: VII. Talisman, Shield, and Sword,’ *Manuscripta Orientalia* 4, no. 3 (September 1998): 24–34; Efim A. Rezvan, ‘The Qur’ān and its World: VIII/1. Contra Legem Saracenorum: The Qur’ān in Western Europe,’ *Manuscripta Orientalia* 4, no. 4 (December 1998): 32–62; Efim A. Rezvan, ‘The Qur’ān and its World: VIII/2. *West-Östlichen Divans* (The Qur’ān in Russia),’ *Manuscripta Orientalia* 5, no. 1 (March 1999): 32–62; Efim A. Rezvan, ‘The Qur’ān and its World: IX. The Triumph of Diversity: Muslim Exegesis,’ *Manuscripta Orientalia* 5, no. 2 (June 1999): 37–57.
32. See also *EQ*, ‘Fātiha.’
 33. See, for example, the text inscribed on the shoulder blade of a camel and now in Princeton University Library, *EQ*, II, pl. III.
 34. This order became fixed when the revelation was regularly transcribed in codex format. Some early fragments found in the Yemen have a different ordering, particularly in the middle *suras*; see Gerd-R. Puin, ‘Observations on Early Qur’ān Manuscripts in Ṣan‘ā’ in *The Qur’ān as Text*, ed. Stefan Wild (Leiden, 1996), 110–11; *EQ*, 1:347–51 (Codices of the Qur’ān). The same holds for the order of chapters in the three great codices of the Bible, which were probably copied from a boxful of earlier books. See Thomas S. Pattie, ‘The Creation of the Great Codices,’ in *The Bible as Book: The Manuscript Tradition*, ed. John L. Sharpe III and Kimberly van Kampen (London, 1998), 61–72.
 35. Michael Cook, *The Koran: A Very Short Introduction* (Oxford, 2000), 65–6 provides a quick introduction to these naming practices.
 36. W. Montgomery Watt, *Bell’s Introduction to the Qur’ān*, Islamic Surveys (Edinburgh, 1970); Flügel, *Corani*; Gustav Flügel (ed.), *Concordantiae Corani Arabicae* (Leipzig, 1842); *Al-Muṣḥaf al-Sharīf or al-Qur’ān al-Karīm* (Cairo, 1342/1923–4). On the Flügel and Cairo (sometimes called the Azhar Koran as the text was vetted with the assistance of the shaykh at al-Azhar Mosque), see also Hartmut Bobzin, ‘From Venice to Cairo: On the History of Arabic Editions of the Koran,’ in *Middle Eastern Languages and the Print Revolution, a Cross-Cultural Encounter, a Catalogue and Companion to the Exhibition*, ed. Eva Hanebutt-Benz, Dagmar Glass, and Geoffrey Roper, in collaboration with Theo Smets (Westhofen, 2002), 169–71.
 37. Abdullah Yusuf Ali, *The Holy Qur’ān: Text, Translation and Commentary* (n. p., 1946).
 38. To show how tricky these numbering systems can be, this verse is the same number in Abdullah Yusuf Ali’s bilingual edition of the Koran, but it is the 256th verse in Flügel’s edition.
 39. Muḥammad Fuwād ‘Abd al-Bāqī, *al-Mu’jam al-mufahras li-alfāṭ al-qur’ān al-karīm* (Beirut, 1364/1945, new edn 1388/1968).
 40. Paleographers working on Western scripts typically distinguish between the text script, used for writing a continuous text, and the display script, used for headings or titles. Such distinction was already made by the time of the venerable Bede, as in a commentary on Luke, made at Tours c. 820. See Turner, *DoA*, ‘Script’ and fig. 1. The term ‘hierarchy

- of scripts' was adopted by E. A. Lowe, *Handwriting: Our Medieval Legacy* (Rome, 1969). Parkes, *Pause and Effect*, 27 and 33–4 and n. 44, distinguished between the three types used in later Anglo-Saxon manuscripts. The most elaborate of these display scripts are found in the Bibles prepared under the auspices of Alcuin, the Anglo-Saxon scholar who assisted Charlemagne. The connections between Insular and Anglo-Saxon manuscripts and contemporary Islamic ones is a subject that deserves further study.
41. Sells, *Approaching the Qur'an*, 15–16, citing arguments made by Norman O. Brown, 'The Apocalypse of Islam,' *Social Text* 3, no. 8 (Winter 1983–4): 155–71.
 42. See also EQ, 'Ornamentation and illumination.'
 43. Hans-Caspar Graf von Bothmer, 'Architekturbilder im Koran: Eine Prachthandschrift der Umayyadenzeit aus dem Yemen,' *Bruckmanns Pantheon* 45 (1987): 4–20.
 44. Parkes, *Pause and Effect*, Chapter 2, lays out the components of what he labels this 'grammar of legibility.' Such carpet pages were typical by the eighth century, as in the splendid Lindisfarne Gospels (London, BL, Cotton MS Nero D.IV), a pinnacle of Insular art datable c. 700 (Turner, *DoA*: 'Insular art 3,' 'Manuscript illumination,' fig. 3), but scholars debate which is the earliest example to survive. According to Parkes (note 55), the earliest surviving example of such a carpet page occurs in the Milan Orosius, a copy of the universal chronicle written in the early fifth century, for which see Jonathan J. G. Alexander, *Insular Manuscripts 6th to 9th Century: Survey of Manuscripts Illuminated in the British Isles* (London, 1978), pl. 6. According to Turner, *DoA*: Ireland III, 1 'Painting and Graphic Arts, before 1600,' the earliest examples occur in the Book of Durrow (Dublin, Trinity College, Library MS 57), a small copy of the Gospels ascribed to the second half of the seventh century. Again, the relationship of the Insular carpet pages to similar decorated pages in Islamic books needs further investigation.
 45. The exhibition catalogue, *De l'Empire romain aux villes impériales: 6000 ans d'art au Maroc* (Paris, 1990), gives several examples of Koran manuscripts from the Maghrib, including two made in thirtieths (nos. 502 and 505) and three made in sixtieths (nos. 496, 509 and 514). The statement that the division into sixtieths is a recent one is found on p. 250.
 46. Arberry, *The Koran Interpreted*.
 47. As Thomas Burman has recently shown ('Polemic, Philology, and Ambivalence: Reading the Qur'an in Latin Christendom,' *Journal of Islamic Studies* 15, no. 2 [May 2004]: 181–210), Robert of Ketton's translation was made not only for polemic and philological reasons (to attack Islam and to chase down the meaning of odd words and constructions) but also involved more sophisticated reading practices, using rhetoric and elegant paraphrase. Later manuscripts of his translation often incorporate design features, such as titles, colors, and paragraph markers, to 'introduce the reader into the text' and make it look like a scholastic textbook.
 48. The best introduction to early printed editions of the Koran is Alastair Hamilton, *Europe and the Arab World: Five Centuries of Books by European Scholars and Travellers from the Libraries of the Arcadian Group*, originally published as an exhibition catalogue, *L'Europe et le Monde Arabe* (Dublin, 1994), which contains reproductions of and commentaries on virtually all early specimens. The first Basel edition of 1543 is no. 4, the second one of 1550 is no. 5; the Nuremberg edition of

- 1616 is no. 6; André du Ryer's French translation of 1649 is no. 29; and George Sale's English translation of 1734 is no. 35. See also the recent essay by Hartmut Bobzin, 'From Venice to Cairo', 151–76.
49. *The Korân*, trans. George Sale (London, n.d.).
 50. Marmaduke Pickthall, *The Meaning of the Glorious Koran: An Explanatory Translation* (London, 1930).
 51. Arberry, *The Koran Interpreted*.
 52. Sells, *Approaching the Qur'an*.
 53. Cook, *The Koran*.
 54. Priscilla Soucek, *EI/2*: 'Iran,' viii(a) Art (Supplement, 7–8: 448) suggested, for example, that the translation into Persian of al-Tabari's commentary on the Koran produced by a group of scholars during the reign of the Samanid Mansur ibn Nuh (961–76) may have been produced in bilingual manuscripts. A copy made in the early thirteenth century for the vizier of the atabeg of Azerbaijan, Abu'l-Qasim Harun ibn 'Ali ibn Zafar Dindan (Paris, BN, ms. or. supp. pers. 1610; *Splendeur et majesté: Corans de la Bibliothèque Nationale* [Paris, 1987], no. 30; Francis Richard, *Splendeurs persanes: Manuscrits du XIIe au XVIIe siècle* [Paris, 1997], no. 2), for example, contains the Koranic text in Arabic with an inter-linear translation into Persian. Each sequence of Arabic text is followed by a section containing the Persian translation of the commentary.
 55. This copy (Tehran, INM, no. 3496; *The Arts of Islam*, exhibition catalogue, Hayward Gallery [London, 1976], no. 509; *Gulchīnī az qur'ānhā-yi khatī-yi mūza-yi dawrān-i islāmī* [A Selection of Koran Manuscripts in the Museum of the Islamic Eras] [in Persian] [Tehran, 1375/1997], 45) transcribed by Muhammad ibn 'Ali ibn Muhammad ibn 'Ali al-Nishapuri in 584/1188–9 for the Ghurid amir Ghiyath al-Din Muhammad ibn Sam is the earliest dated manuscript that I know with a bilingual translation. For further discussion of the manuscript, see Chapter 6.
 56. This is the case with an early manuscript copied by Mahmud ibn al-Husayn at Hamadan at the end of Jumada I 559/April 1164 (Figure 6.9), which has brief paraphrases in Arabic written in red diagonally between the lines of Koranic text written in black. Sometimes these paraphrases were added after the text was completed, as with a manuscript dated 667/1268–9, in which a rough *naskh* has been added over the rulings. London, Khalili Collection, QUR573; David James, *The Master Scribes: Qur'ans of the 10th to the 14th Centuries AD*, ed. Julian Raby, The Nasser D. Khalili Collection of Islamic Art (London, 1992), no. 17.
 57. Cook, *The Koran*, figs. 18–20. One is a sixteenth-century manuscript written in Aljamiado. Another has Polish written in Arabic script, with the Polish phrase written diagonally below each Arabic one. The copy that Cook illustrates dates from the nineteenth century, but the translation was probably made earlier. A third example shows a line-by-line Afrikaans translation, probably dating from the 1880s.
 58. Arthur Jeffery, *Materials for the History of the Text of the Qur'an* (Leiden, 1937), 4.
 59. Ghassan Ibrahim Shaker Collection, ms. 61; Nabil F. Safwat, *Golden Pages: Qur'ans and Other Manuscripts from the Collection of Ghassan I. Shaker* (Oxford, 2000), no. 46; Nabil F. Safwat, 'The Oldest Qur'an Interpretation into Ottoman Turkish Dialect Called *Tafsir Sharif al-asdāf*,' in M. Uğur Derman 65 *Yaş Armağanı*, ed. Irvin Cemil Schick (Istanbul, 2000), 447–56.
 60. *EI/2*, 'Ghāzī.'

61. Vatican City, Biblioteca Apostolica, Urb. Lat. 1384; see Angelo Michele Piemontese, 'Il corano latino,' *Rinascimento: Rivista Dell'Istituto Nazionale di Studi Sul Rinascimento* 2nd ser., no. 36 (1996): 227-73; Burman, 'Polemic,' 205 and fig. 2. The manuscript, dedicated to Federigo da Montefeltro, was apparently meant for display, as much as anything. It contains lavish illumination, including the shield of the Dukes of Urbino, and the translation is faulty. The volume contains no marginalia and shows no evidence of ever having been read.
62. Yusuf Ali, *Qur'an*.
63. Jonathan M. Bloom, *Paper before Print: The History and Impact of Paper in the Islamic World* (New Haven, 2001), 220; Bobzin, 'From Venice to Cairo,' 153-4.
64. Hamilton, *Europe and the Arab World*, no. 50; Bobzin, 'From Venice to Cairo,' 59 and pl. 75.
65. Klaus Kreiser (ed.), *The Beginnings of Printing in the Near and Middle East: Jews, Christians and Muslims* (Wiesbaden, 2001). On the history of printing in the Ottoman empire, see further Chapter 11.
66. Efim Rezvan, 'Qur'an VI,' 26-7.
67. Graham, *Beyond the Written Word*, 96-7; Efim Rezvan, 'Qur'an VI.'
68. On the two readings, see also Adrian Brockett, 'The Value of the ḥaḥṣ and Warsh Transmissions for the Textual History of the Qur'ān,' in *Approaches to the History of the Interpretation of the Qur'ān*, ed. Andrew Rippin (Oxford, 1988), 31-45.
69. Yusuf Ali, *Qur'an*, iv.

Materials

THIS BOOK COVERS the development of calligraphy written in Arabic script on supple supports, and our survey begins with the three main materials used in the Islamic lands – papyrus, parchment, and paper.¹ Papyrus and parchment, the only two writing materials mentioned in the Koran, were preferred in early Islamic times, but they were eventually replaced by paper, which was both cheaper and easier to use. It also received the most elaborate preparation, and the development of specialty papers designed as supports for fine calligraphy became an art form in itself. The nature of the support also affected the type of pens and inks used and therefore the development of different scripts.

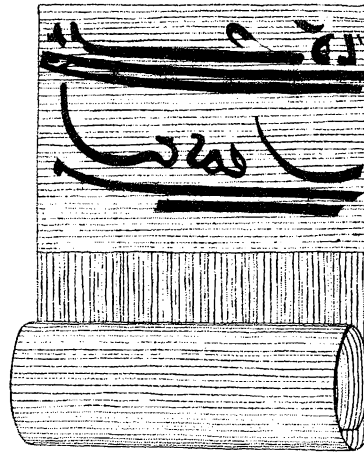
Supports

Of the three supports used in the Islamic lands, the most limited – both chronologically and geographically – is papyrus.² Papyrus (Arabic *qirtas*), from which we derive our word paper, is made from a tall fresh-water reed native to Egypt, *Cyperus papyrus*. Used as early as 3000 BCE, it became the main writing support in Egypt in classical times, since it was easier to handle than available alternatives like wood, skins, and clay tablets. Egyptians maintained a monopoly on production, and papyrus remained the main writing support in Egypt until the late tenth century, when it was replaced by its cheaper rival, paper. When manufactured, papyrus is light-colored, smooth, strong, and flexible. With age, however, it becomes brittle, and most specimens are now brownish. It can be made in a range of thicknesses and qualities. Official documents, for example, are done on the finest quality.

Classical and medieval sources such as Pliny the Elder (writing around the year 70 CE) and Abu'l 'Abbas al-Nabati (d. 1239) describe how papyrus was manufactured.³ Although the sources differ in detail, the main steps are consistent. The stalk was cut into lengths, the outer layer of the plant peeled off, and the stalk split. The resulting sheets or strips were laid in two layers at right angles to each other so that the fibers of the stem ran horizontally on one surface and vertically on the other. No glue was necessary, for the natural gummy substance released when the stalks were cut served to bind the pieces

Figure 2.1 Drawing of the typical papyrus roll used in early Islamic times.

The typical roll comprised twenty pieces of papyrus, each made up of two sheets pasted together at right angles. The fibers run vertically on the inside but horizontally on the exterior, thereby helping to maintain the shape of the roll. A heavier sheet called the protocollon was pasted in the opposite direction to the beginning of the roll; it contains the text of the protocol inscribed horizontally on the inner side.



together into a sheet as they dried. Once dried, the square sheet was rubbed and beaten with a mallet to smooth the surface.

The sheets in turn were pasted to form a roll, which could measure more than two meters in length.⁴ On the outside, the fibers ran horizontally, perpendicular to the length of the roll, thereby helping to preserve its shape (Figure 2.1). On the inside, the fibers of the papyrus ran vertically, parallel to the length of the roll. In early Islamic times the typical roll comprised twenty sheets, as it had in Roman times. Papyrus was sold in complete rolls or in sections comprising one-sixth of the roll. These sections were called *tumar*, from the Greek *tomarion*.⁵

In both classical and early Islamic times, an extra and heavier sheet of papyrus was attached to the roll for the heading. Called a *protokollon* (whence the English protocollon), this preliminary sheet was attached to the other sheets in the roll in the opposite fashion. In Islamic times, the protocol, or text on the inside of this preliminary sheet, was written in Greek until 74 or 75 (693–5 CE) when bilingual protocols were introduced under the Umayyad caliph ‘Abd al-Malik. From the time of the Umayyad caliph Hisham (r. 724–43), the protocol was given solely in Arabic. Arabic protocols contain the basmala, or invocation to God; various religious formulas from the Koran (e.g., 3:173, 9:33, and 9:61); prayers for the Prophet; the names of the caliph and governor of Egypt/head of the provincial treasury or both; the place of production, and sometimes the name of the supervisor. All extant Arabic protocols are written with bold strokes, measuring some 5 mm, probably using a brush or bulrush cut on a slant (Figure 2.2).⁶ In later examples specially colored inks were used to distinguish all or parts of this text. By contrast, the main part of the document was written with a split reed pen, which can leave a double line outlining the strokes of the letters. It produced a much narrower stroke, measuring approximately 1 mm. Thus, even in documents from early Islamic times, copyists were aware of the visual



impact of distinguishing the heading by using a larger or different script with attenuated letters and colored ink. The protocol (and the papyrus on which it is written) was evidently valuable, because the protocol sheet was sometimes detached from the roll and the reverse reused for another purpose. This fragmentary papyrus with the Arabic protocol on one side, for example, contains ten lines from a letter added on the other side.

In early Islamic times papyrus was reserved for documents and letters. A few papyrus fragments bear Koranic verses, but they seem to have been personal anthologies or talismans, and no complete copies of the Koran written on papyrus are known.⁷ Muslims clearly deemed papyrus inappropriate to support the divine revelation, as had Jews and Christians, who used parchment for copies of the Torah and the Bible. Papyrus was too closely associated with the bureaucracy and the profane.

Figure 2.2 *Fragment of a protocollon.*

This fragment contains a protocol written on papyrus in Arabic in a brownish ink with a large pen or brush whose stroke measures 5 mm. The heavier sheet used for the protocol often became detached and was reused, as here where the other side contains ten lines of a letter probably written in the ninth century.

Instead, the material used to make codices in early Islamic times, as in earlier periods, was parchment, known in Arabic as *raqq*, *riqq*, or *jild* and referring to the skin of various animals.⁸ Goat, calf, donkey, and even gazelle skins are sometimes mentioned in the sources, but they are unlikely and unverified by testing,⁹ and the most common was sheep skin. To make a suitable surface for writing, preferably with both sides as similar as possible, the skin had to be carefully prepared. It was cured, scraped to remove any fat or flesh remaining on the inside, sanded, stretched taut, and then dried. The process took weeks.

Despite these preparations, it is often possible to distinguish the hair from the flesh side of a parchment sheet prepared in the Islamic lands.¹⁰ Traces of scraping, for example, are often visible on the flesh side, which is generally whiter and velvety to the touch. The ink adheres better to the hair side, which often shows traces of follicles (Figure 5.4).¹¹ The size of the parchment folios depends, of course, on the size of the animal. The largest examples known, such as the parchment leaf in a marriage contract between Kirwash ibn Humayd and 'Aziza, daughter of someone whose name as been read as Khadij, in Ramadan 461/June-July 1069, measure 85 × 82 cm.¹²

Parchment could be tinted. Some surviving examples from the Islamic period are tinted orange, and in the most famous case blue (Figure 4.10).¹³ It was difficult, however, to dye finished parchment since immersing the sheet in a vat of liquid dye can cause it to shrink or cockle. Therefore, color was usually added to parchment by painting it with a colored substance.

Parchment was an expensive material; its value is evident from that fact that it, like the protocol sheet, was sometimes reused. The parchment could be washed or scraped and then reinscribed with another text as a palimpsest. Some of the folios from a very old copy of the Koran found hidden in the ceiling of the mosque at San'a in the Yemen, for example, are rewritten over another text (Figure 4.7).¹⁴

Old parchment sheets were also reused in bindings.¹⁵ Sometimes they were pasted to the inside of a leather-covered wooden board. Such a pastedown functioned like a doublure, serving to decorate the interior of the binding. Sometimes the parchment sheet also had a structural function. It could be folded around the first and last gatherings of the textblock, then sewn together with them, and glued to the inside of the cover. In this way, the parchment leaf provided a bond, albeit a weak one, between textblock and binding. The only complete book preserved in the cache found in the mosque at San'a is made in this way. Parchment sheets were also cut up into bands to reinforce the spine of the textblock.

For use in manuscripts, parchment leaves were generally ruled with a dry point or occasionally marked with black lead or ink. Somewhat contrary to expectation, in early Koran manuscripts on parchment, this ruling, which was commonly used for the illumination, was not often used to guide the calligrapher in transcription,

even though the textblock was often set out along geometric lines.¹⁶ One of the signs of a good calligrapher in this period was his ability to write uniformly without a guide. One of the rare exceptions is the so-called Blue Koran (Figure 4.10), and the ruling found there can be used as evidence supporting a late, probably tenth century, dating.

Paper, the third material used served as a support for writing in the Islamic lands, was the last to be introduced but became the most common and the cheapest.¹⁷ Paper had been invented in China several centuries before the Common Era, and merchants and missionaries quickly spread paper and knowledge of papermaking from China to neighboring lands. Both the material and the technology traveled westward along the Silk Road; by the eighth century both were exploited in Central Asia. According to the most famous account repeated by the Arab historian al-Tha'alibi (d. 1038) in his *Book of Curious and Entertaining Information*, Chinese prisoners captured by the Arab commander Ziyad ibn Salih introduced papermaking to Samarqand in 751 after the battle of Talas, in which the Arabs defeated the Chinese.¹⁸ Although al-Tha'alibi's details may be wrong (why, for example, would papermakers be soliders?) and his story somewhat of a *topos*, this general context for the introduction of paper to the Muslim lands is probably correct.

The Central Asian origin for the Islamic tradition is confirmed by the first Arabic word for paper, *kaghad*, which derives from Soghdian and Uyghur words. They are commonly thought to derive in turn from the Chinese word *gu-zhi*, 'paper made from paper-mulberry [bark],' although recent research suggests that they may in fact derive from the Greek *chartas*, itself the source for another early Arabic word for paper, *qirtas*.¹⁹ It referred initially to papyrus, papyrus rolls, and parchment; *qirtas* was used in this sense in the Koran (6:7 and 6:91), with reference to writings on separate sheets. The standard Arabic word for paper – common by the ninth century and still used today – is *waraq* (pl. *awraq*), literally meaning foliage or leaf, probably a short form of the phrase *waraq qirtas*, leaf of paper.

Under the 'Abbasids in the ninth century, paper replaced papyrus and parchment for record-keeping in the chancery. The great North African historian and philosopher Ibn Khaldun (1332–1406) credits al-Fadl ibn Yahya al-Barmaki (d. 808), vizier to the caliph Harun al-Rashid, with introducing paper-manufacturing to Baghdad.²⁰ According to Ibn Khaldun, the vizier did so because parchment was in short supply and he needed more writing materials. Paper also had one great advantage over other supports: since paper absorbed ink, the writing on it could not easily be erased, as it could from papyrus and parchment. Documents written on paper were therefore more secure from forgery.

The new availability of paper in the ninth century spurred an extraordinary burst of literary creativity in virtually all subjects from theology to the natural sciences and belles lettres. Scholars began to copy books on paper. The oldest Arabic book copied on paper to

survive is a manuscript dated to 848 that was discovered recently in the regional library of Alexandria, Egypt,²¹ and other loose pages or undated books may be earlier. The second oldest, which is better known and well published, is a fragment of a treatise by the grammarian Abu 'Ubayd (d. 838) on unusual terms in the Traditions of the Prophet dated Dhu'l-Qa'da 252/November–December 866 (Figure 5.1). It is made of stiff opaque paper that has turned dark brown and has a tendency to split along the edges, with text written in brownish black ink in a round hand.

From the ninth century, paper was regularly used in the Islamic lands for many types of manuscripts, including Christian, secular, and theological texts. There seems, however, to have been some resistance to using this new material for transcribing the Koran, for the first surviving Koran manuscripts copied on paper date from almost a century later. The earliest (Figure 5.3) is a four-volume vertical-format manuscript transcribed by the calligrapher 'Ali ibn Shadhan al-Razi (i.e., from Rayy in northern Iran) in 361/971–2.²² The most famous early manuscript of the Koran on paper (Figure 5.8) is that transcribed at Baghdad in 391/1000–1 by the noted calligrapher 'Ali ibn Hilal, known as Ibn al-Bawwab.²³

The introduction of paper seems to have brought other changes in book production. It engendered the development of new styles of calligraphy. 'Ali ibn Shadhan al-Razi, for example, copied his Koran in a distinctive style with diagonal or bent letters, and Ibn al-Bawwab used a distinctive rounded hand. In addition, the typical book format changed from horizontal (landscape) to vertical (portrait). Despite the introduction of paper, parchment remained common for Koran manuscripts at least until the tenth or eleventh century and continued to be used in the Maghrib until the fourteenth century.²⁴

Only one brief account of papermaking survives from medieval Islamic times. It is part of a treatise on making books, *Umdat al-kuttab wa 'uddat dhawi al-albab* (Staff of the scribes and implements of the discerning), written by al-Mu'izz ibn Badis (1007–61), prince of the Zirid dynasty which ruled what is now Tunisia and eastern Algeria from 1016 to 1062.²⁵ Ibn Badis describes making paper from raw flax on a floating screen. Examination of extant paper shows, however, that for centuries this rather primitive technique had been superseded throughout the Islamic lands by more sophisticated methods in which waste materials, such as rags and old ropes, were exploited as the primary source of fiber and the mold was dipped into a large vat of pulp suspended in water. This is only one of several discrepancies between what Ibn Badis describes and what extant specimens tell us. These discrepancies suggest that Ibn Badis' information should not necessarily be taken as fact.

Papermaking, which requires clean water to soak the flax and fast flowing water to power the mills, spread across the Islamic lands from Central Asia to Iraq, Syria, Egypt, North Africa, and finally Spain.

Islamic paper was prized in medieval times and often exported to Europe, where papermaking developed only in the eleventh and twelfth centuries after Muslims had established paper mills in Spain and Sicily. By the fourteenth century, however, Europeans, who had access to more abundant water and waterpower, began to make cheaper and more abundant, if at first not necessarily better, paper than that manufactured in the Islamic lands. By the mid-fourteenth century chanceries in North Africa had started to use Western paper, and European paper was occasionally used for manuscripts produced in the eastern Islamic lands. A single-volume manuscript of the Koran ascribed to Iran or Iraq c. 1350, for example, is transcribed on Italian paper datable to the 1340s.²⁶ This manuscript, however, is the exception rather than the rule. While European papers made steady progress in the Islamic lands to the south and east of the Mediterranean, papermakers in Iran and the east produced increasingly fine papers well into the sixteenth century.

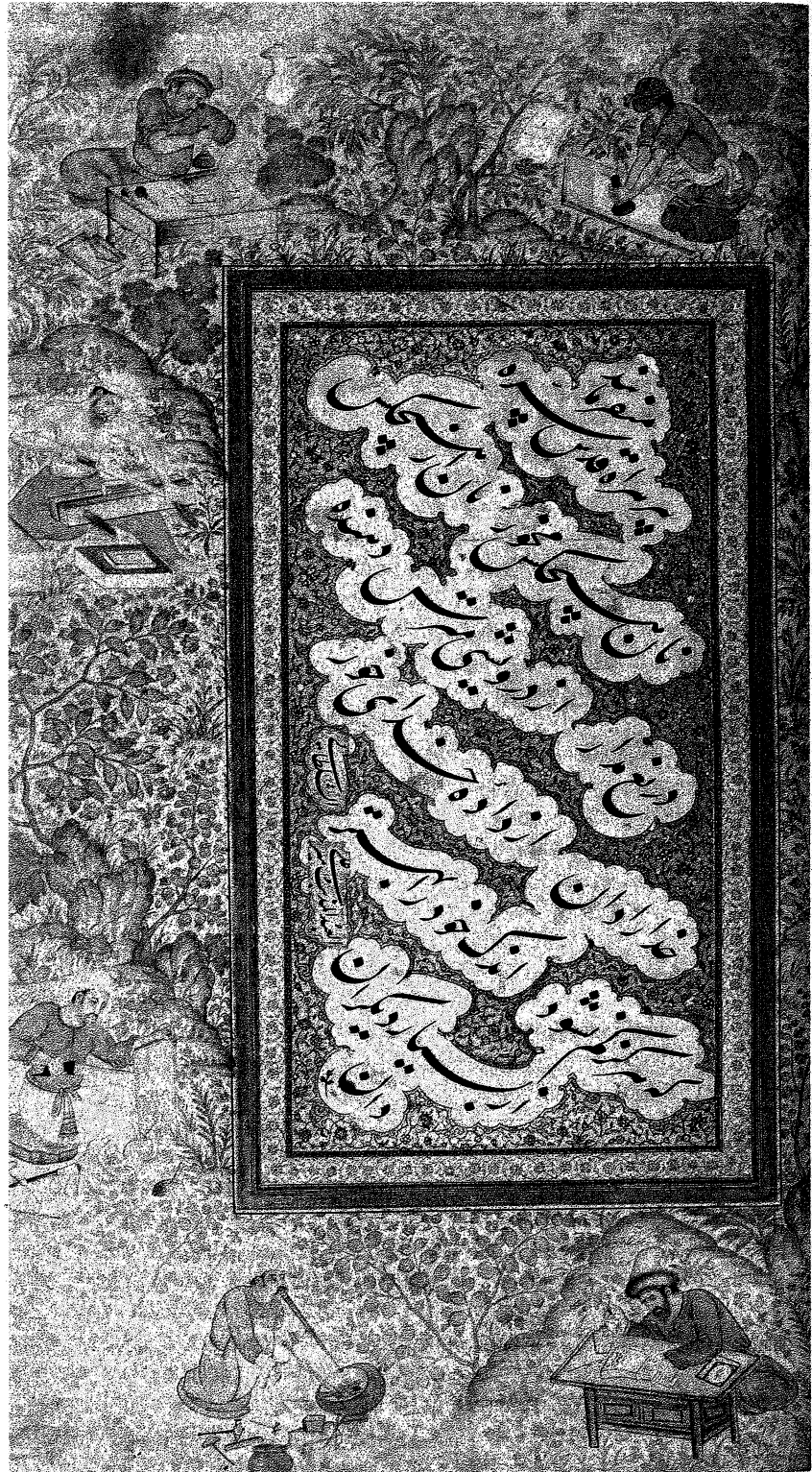
To make paper worthy of fine calligraphy, it has to be prepared properly. The paper has to be sized to prevent the ink from penetrating the fibers. The size (*ahar*) used in Islamic paper was some sort of starch-based substance, usually a mixture of rice powder, starch, or quince kernels along with egg white and other ingredients. It could take the form of a liquid, paste, or powder. Sizing allows the calligrapher to correct mistakes since the ink remains on the surface. The ragged edges of letters, for example, can be wiped away with a bit of cotton, licked off, or scraped away.

Next, the paper is rubbed or burnished to make it smooth and stabilize the sizing. Burnishing has to follow sizing relatively quickly, for if raw paper is not burnished within a week, the size will crack during burnishing. To burnish a sheet, the craftsman usually laid it on a smooth surface such as a wooden plank and then rubbed it with some sort of smooth heavy tool. Ottoman calligraphers used a wooden burnisher with handles on either end and a protruding piece of polished flint in the center,²⁷ and a marginal illustration from an album compiled for the Mughal emperor Jahangir (Figure 2.3) shows a craftsman using a heavy mallet.²⁸ Others used an agate egg or similar object.

Most paper used for fine manuscripts or calligraphic exercises was then ruled with a device called a *mastar(a)* or *mistara*, a set of strings stretched over a pasteboard, or occasionally wooden, frame (Figure 2.4).²⁹ To make the ruler for pages in a particular manuscript or for a particular type of calligraphic exercise, the calligrapher calculates the proper spacing of lines on the page. He draws the arrangement on a piece of pasteboard and then sews the lines with a single thread. Horizontal lines indicate the baselines for the calligraphy; vertical lines at the sides indicate the written area. This specimen, for example, rules a prose text with twenty-five lines in a block measuring 16 by 9 cm. To use it, the craftsman placed the ruling frame below the sheets of paper and then rubbed, either with his nail or

Figure 2.3 Page from an album made for the Mughal emperor Jahangir in the opening decade of the seventeenth century.

The center contains a calligraphic exercise (*qit'a*) in *nasta'liq* by the Timurid calligrapher Mir 'Ali Husayni Haravi; the gold-painted border shows six vignettes of book-making. Reading from upper right counterclockwise, they show a calligrapher burnishing a sheet, a bookbinder stamping a cover and another trimming the edges of a bound volume, a carpenter making a wooden bookstand, an illuminator melting gold, and a calligrapher writing in an already bound volume.



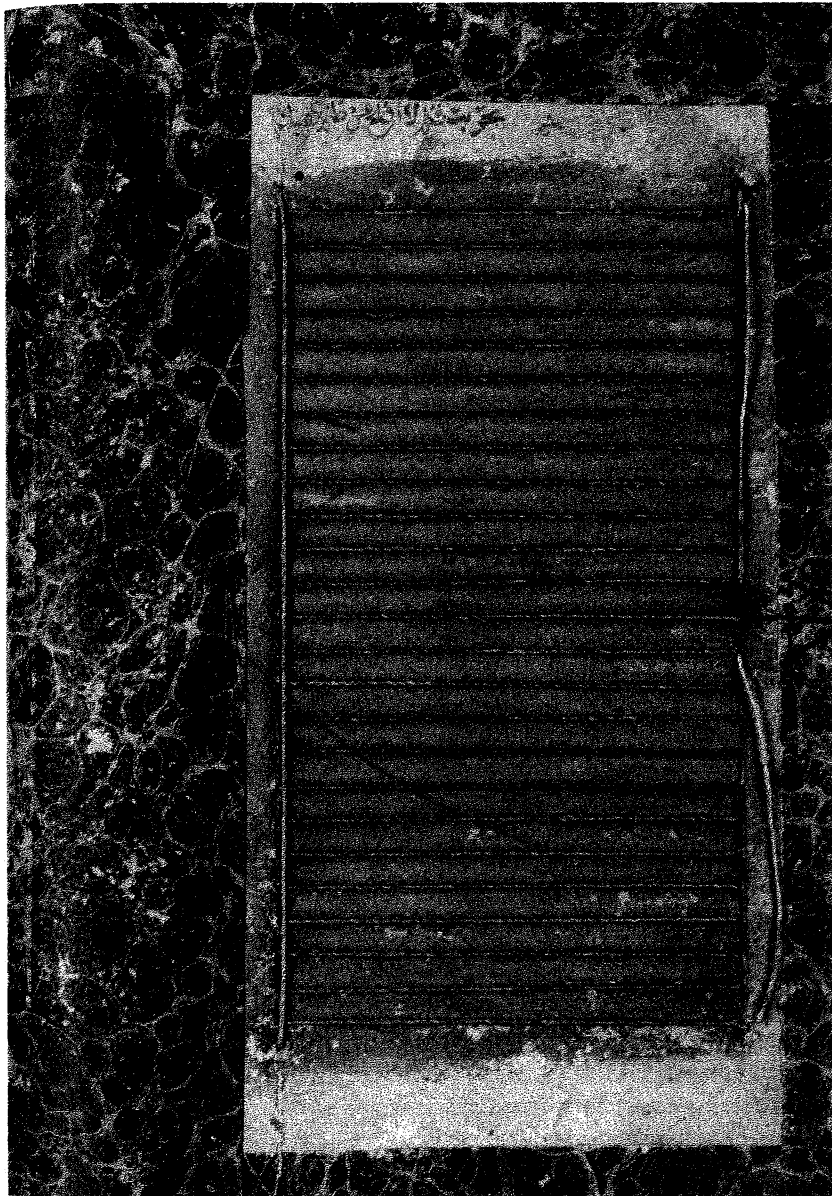


Figure 2.4 *Mastar*.

The *mastar*, a set of cotton strings stretched over a frame, was used to rule the page. This example, which produces a written area with twenty-five lines measuring some 16×9 cm, probably dates from seventeenth- or eighteenth-century Iran or India, to judge from the marbled borders, but such devices were used already in the early middle period.

with a heavier tool, producing thin guidelines that are raised on the upper surface of the support and indented on the lower.

The *mastar* became popular only in medieval times. Calligraphers working on paper in early Islamic times apparently continued the practice of those working on parchment and did not rule their manuscripts in this way. There is no trace, for example, of a ruling in the manuscript of the Koran penned by Ibn al-Bawwab in 391/1000-1 (Figure 5.8). Other methods of ruling were also used, particularly in early Islamic times. A large, seven-part manuscript of the Koran

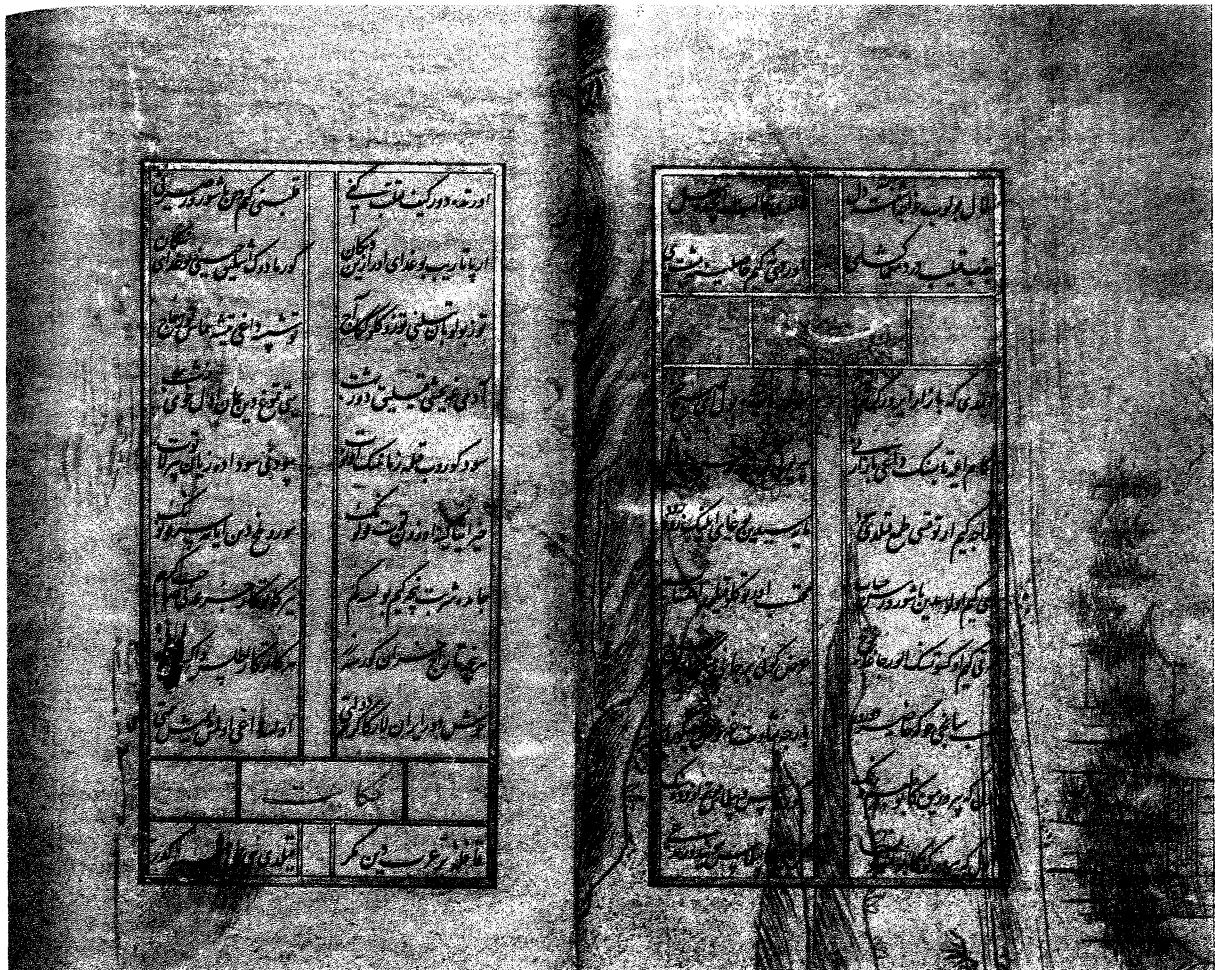
copied on paper in broken cursive and datable to the eleventh century, for example, was ruled with a drypoint, like some parchment manuscripts.³⁰

Ruling became popular during the period of the Six Pens (see Chapter 7). The master calligrapher Yaqut, for example, used it in his Koran penned in 685/1286 (Figure 7.1). Standard from this point on, ruling became the basic unit of measurement for a manuscript. Thus, the sixteenth century chronicler Dust Muhammad reports that when Baysunghur wanted a copy of the album (*jung*) that had been prepared for the Jalayirid ruler Sultan Ahmad (r. 1382–1410), the Timurid prince asked his artists to produce a book in exactly the same shape and ruling (*qat' wa mastar*).³¹ In later times, the horizontal laid lines of the paper could also be used to guide the calligrapher, although they are technically not a ruling.

Special papers

Of all the steps taken in the Islamic lands to prepare paper for fine calligraphy, the most distinctive was to tint the sheets, and colored and decorated papers have been popular for the finest manuscripts and individual specimens produced across the Islamic lands since medieval times.³² Before the invention of chemical bleaches in the eighteenth century, the color of the support depended on the materials from which it was made. Early Islamic papers (e.g., Figure 5.1) have a brownish cast, but by the thirteenth century a taste had emerged for whiter paper (e.g., Figure 7.2), a change suggesting that papermakers had refined their materials and techniques. By the fifteenth century, the taste for colored paper was firmly established. The Timurid artist and librarian Simi Nishapuri reports that it is better to give paper a slight tint because white is hard on the eyes.³³ Simi adds that the master calligraphic specimens he observed were done on tinted paper, and extant specimens (e.g., Figure 7.14) bear out his claim.

The taste for such paper probably developed from examples imported from China, where colored papers had been produced since pre-Islamic times.³⁴ At first artists in the Islamic lands may have used imported papers, but the expense and desirability of these exotic commodities led artists to develop their own techniques and materials for making colored, gold-decorated, and marbled papers as well as paper-cuts. The first surviving examples of dyed paper made in the Islamic lands date from the period of Mongol rule in Iran, when it was used for both individual specimens and entire manuscripts. The most popular colors were red or orange, although one manuscript in the Chester Beatty Library has paper dyed olive.³⁵ The taste for colored papers spread quickly to the Maghrib, as, for example, in a famous five-volume manuscript of the Koran datable before 807/1405 that is copied on brownish-purple paper (Figure 9.12).³⁶ Persian treatises give many sources, both vegetal and mineral, used to obtain these colors,³⁷ and the Ottomans followed a similar process to color their papers.³⁸



From the end of the fourteenth or beginning of the fifteenth century, calligraphers in Iran and adjacent areas of the eastern Islamic lands developed even fancier types of specially decorated papers. One technique was to embellish the sheet with gold-flecking or gold-sprinkling (Persian *zar-afshani*). Various sorts of gold and silver paper had been used in China at least since the Tang period (618–907).³⁹ As part of the exchanges between Persian rulers and the Ming emperors in the late fourteenth and fifteenth centuries, rolls of Chinese paper splashed with gold and painted in gold with birds, flowers, and landscape scenes were imported to Iran where they were cut up and used for several manuscripts made for the Timurids and their contemporaries. The earliest dated examples to survive are two copies of Farid al-Din 'Attar's poetry made at Herat for the Timurid ruler Shahrukh c. 1438.⁴⁰

Colored and gold-decorated Chinese papers were apparently taken from Herat to Turkoman courts in Western Iran, where they were used for several smaller manuscripts. One example (Figure 2.5) is a

Figure 2.5 Double page from a copy of Mir Haydar Khwarazmi's *Makhzan al-asrar* transcribed by Sultan 'Ali Qa'ini for the Aqqoyunlu ruler Ya'qub and finished on 25 Jumada I 883/24 August 1478.

Sultan 'Ali Qa'ini transcribed this small manuscript on Chinese paper that was dyed blue and decorated in gold with a landscape of a river, hills, and two birds in a flowering tree. The individual sheets were cut both horizontally and vertically from the roll to maximize the amount of gold painting visible around the written area.

copy of Mir Haydar Khwarazmi's Chaghatay poem *Makhzan al-asrar* (Treasury of Secrets) made for the Aqqoyunlu ruler Ya'qub and finished on 25 Jumada I 883/24 August 1478.⁴¹ The text on its thirty-five small folios is copied on paper that has been dyed light blue, sprinkled with gold, and painted in gold with birds, flowers, and landscape scenes. Such imported paper was clearly precious, for the Aqqoyunlu artists cut sheets both horizontally and vertically from the rolls in order to maximize the amount of gold-painting that fell in the margins and would remain visible after Sultan 'Ali Qa'ini had transcribed the text in the center of each page. Here, for example, the right page was cut horizontally from the roll and reoriented 90° clockwise so that much of the landscape scene with the pagoda falls in the margin. Aqqoyunlu artists' desire to maximize the painted area is clear from the fact that other pages in the manuscript are made by cutting them vertically from the roll or reorienting them in the opposite direction.

Given the cost of the gold-decorated paper imported from China, it is no surprise that Iranian artists began to make their own. Though not as fine quality as the Chinese prototype, the local variety was also expensive and heavy. Gold-sprinkled paper was used mainly, though not exclusively, for borders and was particularly in demand at this time when painters were exploiting the aesthetic possibilities of the margin.⁴² It was typically used in the scrapbook album (*muraqqa'*) of calligraphy and paintings to unite the varying pages with disparate compositions into a single book. Since gold did not tarnish, it was more effective than silver, which was occasionally used in the same way, but which tends to darken near the margins where the air seeps between the pages and oxydizes the metal.

Texts and extant examples show that gold-speckled paper was popular in Timurid and Turkoman ateliers. According to Dawlatshah (d. 1494 or 1507), amir and courtier at the court of the last Timurid ruler Sultan Husayn (r. 1470–1506), gold-sprinkling was already practiced by Simi Nishapuri, an artist who had worked in Khurasan at the court of Baysunghur's son, 'Ala' al-Dawla (d. 1460), and the small but fine anthology copied by Sharaf al-Din Husayn at Shamkha (Shirvan) in 873/1468 already uses three colors (blue, pink, and mauve) of gold-sprinkled paper.⁴³ From the late fifteenth century onward gold-sprinkled borders were typical of the finest poetic manuscripts made in the eastern Islamic lands. Superb gold-sprinkled borders were added, for example, around the pages of cut-out calligraphy in the copy of the poems by the Timurid ruler Sultan Husayn (Figure 2.6).⁴⁴

From the sixteenth century onward, borders with even more elaborate gold painting became standard in prize manuscripts made for the Safavid, Uzbek, and Mughal courts. Many designs incorporate arabesques, and some examples, such as the gold-painted margins in the superb copy of Nizami's *Khamsa* copied by Shah Mahmud Nishapuri at Tabriz between 1539 and 1543 (Figure 10.8), have birds and animals cavorting among flowers and trees.⁴⁵ Gold-decorated

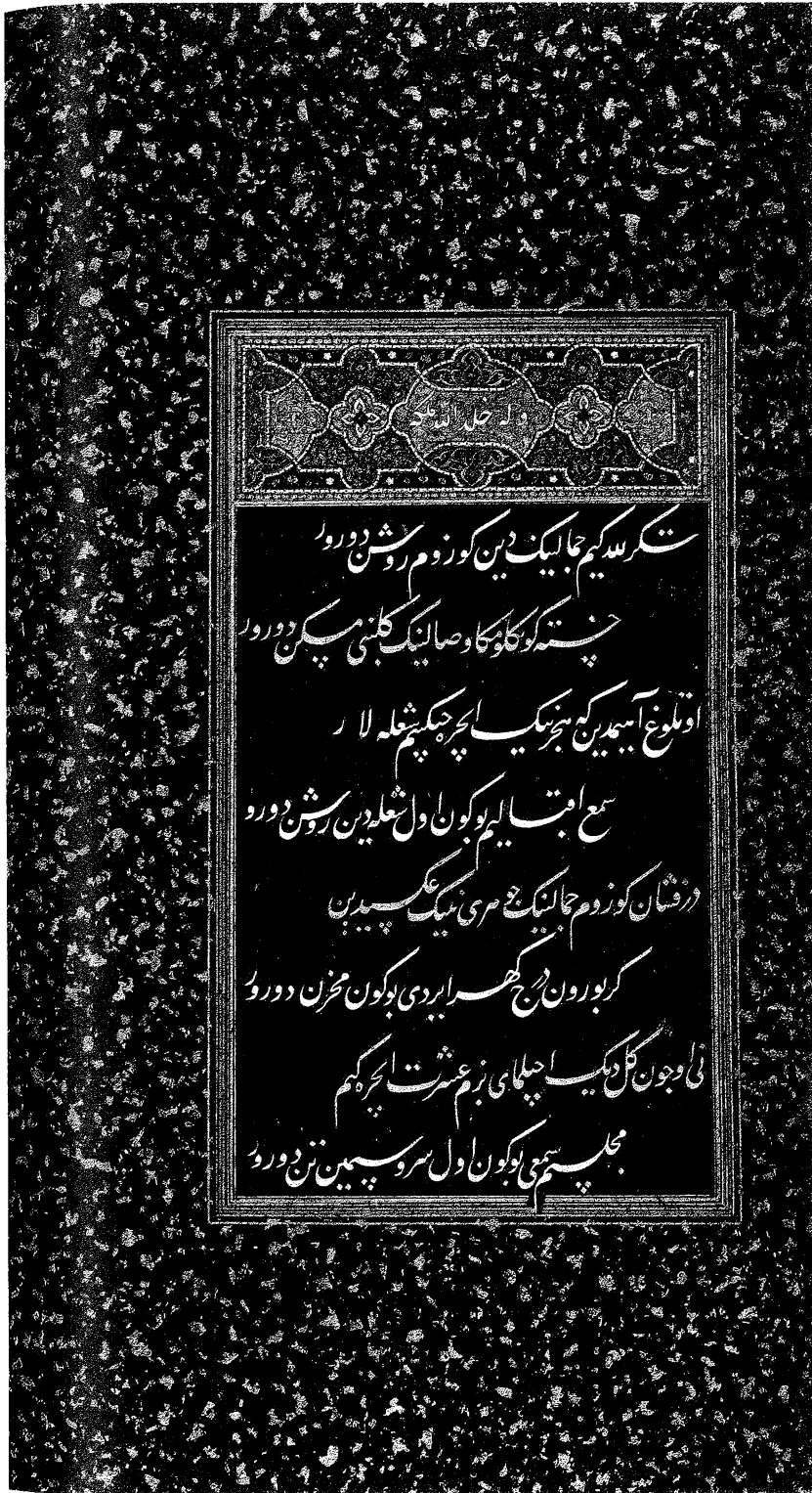


Figure 2.6 Page from a partially dispersed copy of the *Divan* (Collected Works) of Sultan Husayn Mirza, c. 1490.

The last Timurid ruler Sultan Husayn was a poet and bibliophile. This exquisite copy of his collected poems was made for him c. 1490 by cutting out the *nasta'liq* letters from sheets of cream, light blue, and gold paper and pasting them on a dark-blue or green ground and set within colorful rulings and gold-flecked margins.

borders were also common in the formally planned albums containing specimens of calligraphy and painting made for these courts. These albums typically have a double page of calligraphic exercises with figural borders followed by a double page of paintings with floral or abstract borders. The finest of these decorated borders were produced in Mughal India, where leading artists were often responsible for the marginal scenes.⁴⁶

The recto of a detached page from an album made for the Mughal emperor Jahangir is a good example (Figure 2.3).⁴⁷ The gold-painted border shows six vignettes of book embellishment done in the style of the court artists Aqa Riza and Govardhan. The borders surround a calligraphic specimen (*qit'a*) by the sixteenth-century calligrapher Mir 'Ali, whose signature is visible in small letters written vertically along the left side in two cloud panels.⁴⁸ Although his art was not universally appreciated in his own day, later connoisseurs avidly collected his work.⁴⁹

Another type of decorated paper popular for calligraphy in later Islamic times was marbled paper, called *kaghaz-i abri* in Persian and *ebrü* in Turkish, both derived from the word for cloud. To make it, the marbler uses a brush or pipette to add drops of colorant to the surface of a bath, usually a mixture of gum tragacanth and water. Gall is sometimes added to help disperse the colors on the surface. The marbler works the drops of color with pointed instruments and combs to create shot patterns. Once he has obtained the desired pattern, he slides a sheet of prepared paper on the surface of the bath, and immediately it takes up the design created. For each sheet the marbler has to start afresh.⁵⁰

Scholars have debated where and when marbled paper developed in the Islamic lands. Some have argued for India, others for Iran or Turkey; some for the fifteenth century, others for the sixteenth.⁵¹ In fact, the introduction of marbled paper in the Islamic lands may well have been another adaption of a type of paper imported from China: literary references suggest that marbled paper, like gold-decorated paper, had been produced there for several hundred years, and the technique of marbling, like gold-decorating, seems to have developed in Timurid and Turkoman lands in the fifteenth century. Some of the earliest attempts at introducing colored patterns to paper, a sort of proto-marbling, are found in small oblong anthologies of Persian poetry made in Iran in the mid-fifteenth century. One in the Bibliothèque Nationale includes sheets that are tinted ocher, violet, or salmon. Color was added in other ways as well. On one side of some sheets, the papermaker splattered color; on others he stenciled figures or geometric compositions. As in the albums, the splattered and stenciled pages are arranged so that when the volume is open, facing pages have the same decoration (although some have now been detached from the volume). On yet other pages, the papermaker added colorant to produce the effect of a red or brown slur (*coulé*). The manuscript is a masterpiece: in addition to the many colored pages,

it is a calligraphic *tour de force* with interlacing bands containing fine *nasta'liq* script.⁵²

By the end of the fifteenth century, marbling was an assured art in Iran, as attested by a tiny anthology transcribed by Sultan Muhammad Nur at Herat in 905/1499–1500.⁵³ The calligrapher, a disciple of Sultan 'Ali Mashhadi who worked at Herat in the early Safavid period, was renowned for his work in color, and this small manuscript has pages with red and orange marbling alongside other pages tinted beige, pink, and green. Sultan Muhammad Nur's colleague Mir 'Ali Haravi did similar work,⁵⁴ and some sheets were sent as gifts to India.⁵⁵ Although marbled paper was used occasionally as a support for calligraphic specimens, it – like dyed and gold-decorated paper – was typically reserved for other purposes, such as endpapers, bookcovers, and most often spectacular borders, as in the ones added by the Safavids around text pages in the copy of Farid al-Din 'Attar's *Mantiq al-Tayr* (Figure 7.17).⁵⁶

One other paper technique, however, was used for the calligraphy itself: the paper-cut, called *qat* in Persian and *kat* in Turkish. Like gold-decorated and marbled papers, the art of paper-cutting seems to have developed in Timurid times, and it too may have come to Central Asia from China, where there was a long folk tradition of paper-cutting.⁵⁷ In the Islamic lands, as part of the florescence of the arts of the book, paper-cutting was expanded from figural and floral subjects to arabesques and writing.

Paper-cutting was first applied to calligraphy in Arabic script in the fifteenth century. Examples of collage (cut-out letters pasted onto a background of contrasting color, usually light on dark), and, more rarely, *découpage* (a sheet of contrasting color mounted behind a sheet from which letters are cut out) survive from the fifteenth and sixteenth centuries. One of the earliest is a small manuscript of the hundred sayings attributed to 'Ali ibn Abi Talib copied by Muhammad ibn Sayyidi Ahmad ibn 'Ali al-Sufi al-Maraghi in 876/1471–2.⁵⁸ The manuscript is a technical *tour de force*, displaying the calligrapher's skill in a wide variety of scripts, including the Six Pens, *nasta'liq*, and *ta'liq*, executed in both collage and *découpage*.

Cut-out calligraphy, like so many other arts of the book, became popular at the court of the Timurid ruler Sultan Husayn. The most famous example is a manuscript of his collected poetry in the variant of Turkish known as Chaghatay, eastern Turkish, or Turki.⁵⁹ To make this page with couplets with a *ghazal*, or ode, about union with God (Figure 2.6), sheets of pale-blue, yellow, white, and brown paper were cut to form letters, syllables, and words in *nasta'liq* script that were pasted on a dark-green ground. An exquisitely illuminated band was added at the top, and the page glued to another in the contrasting color (blue). The sandwich page was then inserted into gold-flecked green borders like a window inside a frame, and blue, orange, and gold rulings added around the page with written area, leaving space at the bottom for the descending tail of *mim*, to hide the join between

window and frame.⁶⁰ The cut-out work is often attributed to Shaykh 'Abdallah of Herat, considered the best practitioner of this art in Timurid times. He was but one star in the firmament,⁶¹ and the many Persian craftsmen and artists who emigrated to Istanbul in the early sixteenth century probably brought the art of paper-cutting to Ottoman Turkey, when it reached even greater heights.⁶²

The arts of coloring, decorating, and cutting paper were closely connected, and many artists were skilled in more than one craft. The interrelation of these paper arts and calligraphy can be seen in the opening pages (Figure 2.7) to a small collection of forty hadith, or sayings of the Prophet, made for the Ottoman prince Mehmed c. 1540.⁶³ The colophon is signed by the cut-out calligrapher 'Abd al-Hayy 'Ali. The eight pages have horizontal panels of Arabic written in the large script called *tawqi'* alternating with diagonal panels of the Persian translation written in *nasta'liq*. The letters, cut out in white or pale blue, as well as pointing and dotting, cut out in gold, are pasted on deep-rose or olive-green grounds. Some margins are plain, others gold-sprinkled, and still others marbled in blue and white.

This collection of hadith also marks the first known appearance of florists' flowers in Ottoman art, a subject that was to dominate Ottoman court art from the late sixteenth century. The illuminated headpiece is adorned with blue and red flowers, and the doublure of the lacquered binding is decorated with a garden of roses, tulips, prunus, violets, dianthus, and iris. These floral themes were soon incorporated into the other fancy papers made for the Ottomans. Some of the most elaborate marbled papers made for the Ottomans contain stylized flowers, including pansies, carnations, hyacinths, tulips, and daisies. Similarly, in Ottoman hands, the art of paper-cutting was not confined to calligraphy but expanded to miniature gardens replete with flowers, shrubs, and trees executed in collage that mimicked the actual gardens cultivated by the sultans. The greatest of the paper-cutters of late Ottoman times was Fakhri of Bursa (d. 1617), the only paper-cutter mentioned by the Ottoman chronicler Mustafa 'Ali in his history of calligraphers and artists written in 1580 and one whose work was deemed worthy of royal albums.⁶⁴

The paper-cut marks the ultimate conceit in the art of calligraphy. Whereas calligraphers in earlier periods had expanded their art by refining new scripts, calligraphers at these well-to-do courts in later Islamic times refined the same scripts but developed new and somewhat exotic techniques in which to execute them. Some Ottoman calligraphers tried to hide their penstrokes and make the flow of the ink appear seamless, even when writing a long phrase that must have required the calligrapher to charge his pen repeatedly.⁶⁵ The same effect is achieved here by cutting the word out from a single sheet, thereby removing ink and flow from the process entirely. Although somewhat of a rarefied idea, this art lives on today in the combination of cut-outs and calligraphy practiced by modern Turkish artists.⁶⁶



Figure 2.7 Opening double page from a collection of hadith prepared for the Ottoman prince Mehmed, c. 1540.

This short manuscript epitomizes the arts of the book as refined under the Ottomans in the sixteenth century, with tinted, gold-spinkled and marbled papers; cut-out calligraphy by ‘Abd al-Hayy ‘Ali; and exquisite illumination, including the first dated example of florists’ flowers. Each full page has three horizontal panels of Traditions written in Arabic in *tawqi’* script, each followed by two explanatory couplets in Persian cut-out in the hanging *nasta’liq* and set either diagonally in the middle or horizontally at the top and bottom of the page. The pages thus contrast languages, scripts, and colors as symmetry and balance triumph over readability.

Pens and pen cases

The traditional implement used for writing Arabic script is the reed pen, or *qalam* (Figure 2.8). Such pens wear out quickly, and no examples have survived from medieval times, so we must depend on textual sources to establish how such pens were traditionally made.⁶⁷ According to the tenth century geographer al-Muqaddasi, for example, yellowish white reeds were cut from beds in marshy or wet areas. The

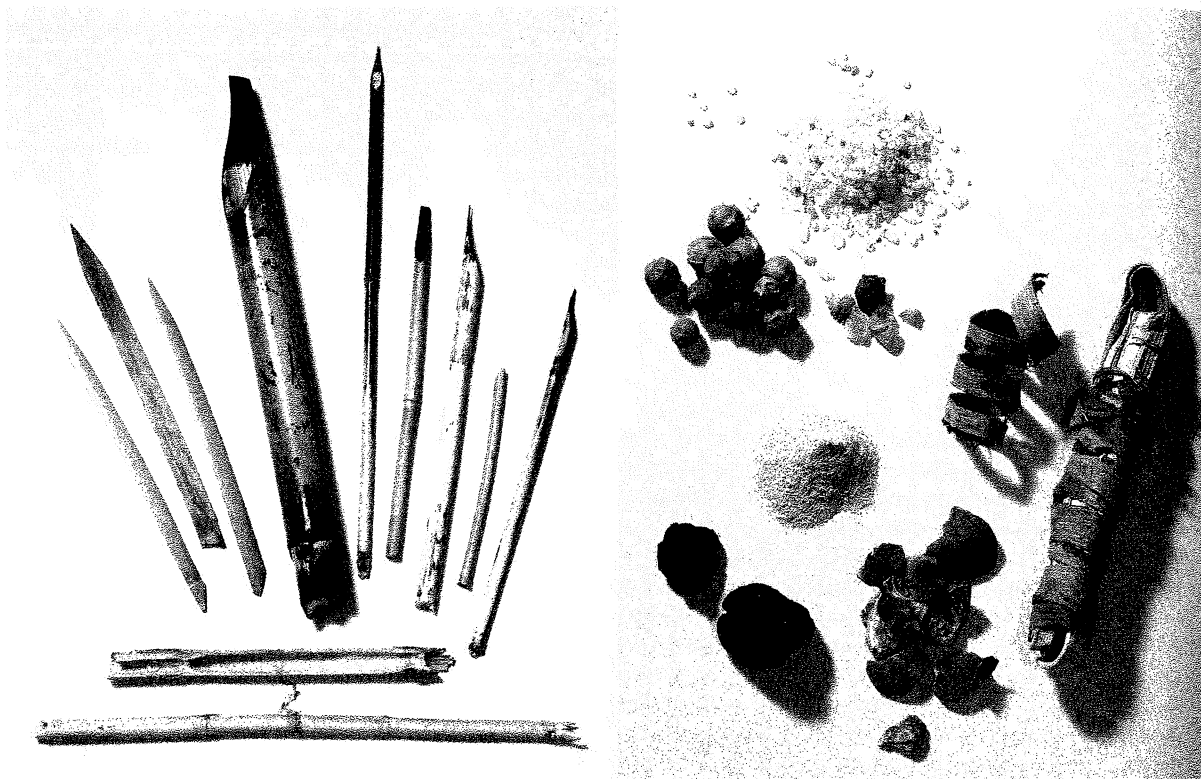


Figure 2.8 *Reed pens and ingredients for inks, including gum arabic, gallnuts, pomegranate skins, walnut shells, fenegreek, and smagh.*

Calligraphers in the Islamic lands always used a reed pen (*qalam*). Each different script required a reed of a different size with a differently cut nib. Metal tannate inks were made from gallnuts and metallic salts such as vitriol or alum bound together with gum arabic. Carbon-based inks were often made from lamp black, but calligraphers today in the Maghrib pen amulets from *smagh*, made from sheep's milk rich in carbonized suint, the natural grease from sheep's wool.

marshes of Iraq and the swamps of Egypt and Fars were renowned for their firm reeds that did not wear away quickly and had straight fibers. The pen was made from a tube of reed cut between two knots.

Like most artists, calligraphers lavished great care on the implements of their art, and the desire for a durable material for the pen led calligraphers in modern times to exploit new and often imported materials, whose exoticism added to their allure.⁶⁸ In the early nineteenth century, for example, Javanese pilgrims to Mecca introduced pens made from the hard, straight, and slender thorn of a palm tree native to Indonesia and Malaysia. Ottoman calligraphers readily adopted these 'Java pens,' which were extremely durable and had little need of recutting, to transcribe the Koran and other lengthy texts, affixing a normal reed to the thorn pen as a handle. Calligraphers in late Ottoman times also used other materials such as bamboo and wood to make larger pens for writing thick or large letters needed for the enormous cardboard or wooden panels (Turkish *levhalar*) (Figure 11.11).

These other types of pens, however, are the exception rather than the rule: they were used only in the last few centuries when new and rarified techniques of writing and papermaking were developed, particularly under the Ottomans. In most places and times, the reed pen was standard and its use so ubiquitous that it became a literary cliché. The type of reed used for a pen was also used for a flute

(Persian *nay*), and poets and mystics often compared the two.⁶⁹ The mystical poet Jalal al-Din Rumi (d. 1273), also known as Mawlavi, evoked the reed flute in one of the most famous passages from classical Persian poetry, the stunning verses opening his long poem, *Mathnavi-yi Ma'navi* (The Mathnavi of Intrinsic Meaning). Listen, he says, to the song of the reed flute as it laments its separation from the reed bed, reveals the secrets of love and longing, and casts the fire of love into the human soul.⁷⁰

Poets evoked the reed pen in similar terms. It too has been separated from the reed bed. It too is hollow, and it too is filled with sweetness when conveying the words of love. Both recount the secrets in men's minds: the pen puts them on paper in undulating lines, the flute expresses them in undulating strains of notes. Modern poets continue to use this imagery. Hasan Massoudy began his recent book on Arabic calligraphy, *Calligraphie arabe vivante*, with a maxim by the French poet and surrealist Louis Aragon (1897–1982) that 'From the musical line and the written line have emerged the flute and the pen.'⁷¹

To be used for writing, the fresh reed has to be seasoned. Literary sources again provide somewhat generalized descriptions, which may be apocryphal. Some mention, for example, that the reed should be left to steep like hemp and kept submerged in water. Others report that the reed was buried, traditionally for a period of four years, in horse manure which maintains a constant warm temperature. In both cases, the reed hardened and darkened to reddish, light, or dark brown, or even black.⁷²

The seasoned reed is then sliced at the thicker end to form a nib (*jilfa*), which is slit to a point. The calligrapher trims the nib by laying the reed against a small flat slab (Arabic *miqadda*; Persian *nay-qat*), generally a piece of ivory or bone that has a small groove to secure the tip of the pen. Using a special sharp knife with a long handle, the calligrapher then slits the point with a sharp transverse cut. This opening (*shaqq*) becomes a reservoir containing a small store of ink, which flows down to the nib as the calligrapher writes. Court calligraphers in later times sought exotic and expensive materials for these implements as well, using tortoiseshell or mother-of-pearl for the slab and gold-inlaid steel, enameled gold, ivory, coral, mother-of-pearl, or ebony for the handle of the penknife, sometimes embossing its blade with the maker's name.⁷³ Calligraphers are said to have trimmed the nib while sitting cross-legged as they did while writing (Figure 12.1).⁷⁴

Trimming the nib was a speciality; good cutting was considered half the script. To write the angular scripts typical of early Islamic times, the nib was usually trimmed flat, but with the predominance of round hands, an oblique cut became popular. The treatise by the tenth-century calligrapher Abu Hayyan al-Tawhidi, who wrote just at the time of this transformation from angular to round scripts, mentions that the pen can be nibbed in different ways: oblique, even, upright,

and inclined, but that the best is the oblique cut with a medium slant.⁷⁵ This became the standard, particularly in the eastern Islamic lands: the Timurid calligrapher Sultan 'Ali Mashhadi, for example, also advocated a middling cut in his section on trimming the nib.⁷⁶

In later times, the letters were measured in terms of dots formed by pressing the nib of the reed pen on the paper. Placed at a 45° angle to the horizontal, the nib was drawn downwards and to the right to produce a perfect diamond. The area of the dot, and therefore its shape, depends on the width to which the nib has been trimmed, and the side of the diamond is equal to the width of the nib. This system was codified by the thirteenth century (Figure 6.11), but we do not know how much earlier it was used.

Close examination shows how frequently a calligrapher had to lift his pen to transcribe a single folio of the kufic script used in many early Koran manuscripts.⁷⁷ To write the seven words on one page from the so-called Amajur Koran (Figure 4.2), for example, the calligrapher needed to lift his pen nearly thirty times. Independent *alif*, the first letter of the alphabet and the simplest, is a single stroke traditionally written by stroking down. To write it here, as in the last letter at the left in the first line, the calligrapher stroked down and to the right. The end of the stroke is darker due to the surface tension and pooling of the ink created as the calligrapher lifted his pen. The variations in density of the ink show that to write the previous syllable with the two letters *lam* and *waw*, he used three strokes: the first from the top down for initial *lam*; the second for the head or eye of *waw*; and the third for the tail of *waw*, which he drew from left to right. The first word on the second line, *na'udu*, has four letters, but required six strokes. In contrast, in regular handwriting such syllables and words are normally written without lifting the pen. Despite its appearance of effortlessness, the art of calligraphy was both time-consuming and carefully planned.

The slit in the nib holds only a small reservoir of ink, forcing the calligrapher to recharge his pen repeatedly. This is clearly a problem, and from medieval times calligraphers sought ways to improve the pen. The Fatimid caliph al-Mu'izz (r. 953–75), for example, is said to have come up with the idea of a fountain pen that did not have to be dipped into an inkwell and did not drip. Despite doubts, the court goldsmith made one for him and after various improvements came up with a pen that could be rotated in the hand and inclined in all directions without the ink running out.⁷⁸ This fountain pen must have been something of a curiosity, and no examples have survived.

Reed pens were usually stored in a pen case, known in Arabic as *miqlama* or in Persian as *qalamdan*. Many pen cases were rectangular boxes measuring about 19 cm. Fancy ones of metal or ceramic were often made to order for specific individuals by named craftsmen. The earliest dated example known is a bronze pen case made in 542/1148 and inscribed with Persian and Arabic verses about the pen

(*qalam*) and inkpot (*dawat*).⁷⁹ It continues an earlier tradition, for a fragmentary piece of slip-painted earthenware made in the Samanid domains in the tenth century and inscribed with the name Muhammad ibn al-Fadl probably belonged to a pen case.⁸⁰ Over time, pen cases became increasingly elaborate and larger, with a standard space for the inkpot (see below).

The *qalam* was already an important symbol at the beginning of Islam. It is the opening lines of one of the first chapters of the Koran revealed to Muhammad.⁸¹ According to Traditions collected by the tenth century scholar al-Tabari, the pen was the first thing created by God so that he could write down events to come. This *qalam* has been interpreted in two ways: either as a utensil for writing and like it, a divine gift; or as a shaft of light which inscribed all things that will happen until Judgment Day.

The pen became the symbol of the civil administration in Islamic society. By medieval times it was normally contrasted to the sword (*sayf*), which symbolized the military. Mamluk authors and artists frequently juxtaposed the two, as on the two superb inlaid bronzes made by Muhammad ibn al-Zayn – the Vasselot bowl and the Baptistère of St Louis – where the enthroned ruler is shown flanked by his amir of the sword on the right and his amir of the pen on the left.⁸² Contemporary Ilkhanid paintings from Rashid al-Din's *Compendium of Chronicles* show similar scenes juxtaposing men of the pen and men of the sword.⁸³

Ink and inkwells

Two kinds of dark ink were traditionally used in the Islamic lands: carbon-based inks and metal tannate inks.⁸⁴ In early Islamic times two different words were used for the two types. *Midad*, from *madda*, to stretch out (i.e., the ink), was used for a paint type of ink whose most important ingredient is soot or carbon mixed with oil or plant gums. *Hibr*, from *habbara*, to write, referred to an ink that reacts chemically with the support. It was typically made from gallnuts (*'afs*) and ferrous compounds that produced a dark-brown color.

In later times the terms *midad* and *hibr* were used synonymously, but at least through the eleventh century, each seems to have maintained its specific meaning of either carbon or metal tannate ink. We can deduce this from the treatise on making books, *Umdat al-kuttab*, in which the author Ibn Badis, himself a calligrapher, gives many recipes for preparing ink.⁸⁵ His second chapter is devoted to soot inks (*midad*), generally designated by geographical names (Chinese, Indian, kufic, Persian, etc.). Chapter three, by contrast, describes tannate inks (*hibr*), generally designated by their appearance (shining, dry, sunny, etc.) or components (acacia gallnut, myrobalam, myrtle, etc.).

Black ink based on carbon mixed with plant gums had been known since Biblical times and was used by both the Egyptians and the

Romans. This type of carbon ink does not penetrate the support. It is water-soluble and erasable with water, partly because of the impenetrable surface of the papyrus on which it was traditionally used. This type of ink was often associated with water. The Koran (18:109) mentions that if the sea were ink (*midad*) with which to write God's words, then the sea would dry up faster than the ink would be exhausted. Because of its water solubility, Persian poets evoked the metaphor that on Judgment Day the tears of repentance would wash off the black writing in the Book of Deeds.⁸⁶

This type of carbon-based ink that adheres only weakly to the surface can be contrasted to the second type of ink based on metal tannates, in which mixtures of metal salts and tannins produce small amounts of acid that penetrate the support surface. The earliest recipes for this type of ink mix metal salts (usually alum or copper sulfates) with carbon-based preparations, probably to improve the adherent qualities. Eventually, extracts of gall were mixed with iron salt to produce the type known as iron-gall ink.

Like carbon-based ink, iron tannate ink has been known since antiquity. It was used in early Islamic times, particularly on parchment, where it penetrates the surface like dye. Examination of several folios from early parchment copies of the Koran in the Bibliothèque Nationale in Paris show traces of iron.⁸⁷ This type of tannate ink often erodes the surface, and its color is not stable. When used on paper, it produces acids that eventually corrode the surface, as on some of the Geniza documents.⁸⁸

Eventually the two types of carbon and tannate ink were combined, with one or more elements from one type added to the other. Typically, lampblack was added to iron-gall ink, probably to help stabilize the black color. A sixteenth-century source credits the renowned tenth-century calligrapher Ibn Muqla (see Chapter 5) with this innovation, as with so many others.⁸⁹ The terminology also became confused, with *midad* and *hibr* used interchangeably. Most recipes were also mixtures. The Safavid chronicler Qadi Ahmad, for example, describes making ink of soot (*duda*), gum (*samgh*), vitriol (*zak*), and gallnut (*maz*).⁹⁰ The Ottomans used soot inks. The most developed formula involves soot, dissolved gum arabic, and distilled water, mixed and ground together. Ottoman calligraphers were also said to have collected the lampblack produced by the oil lamps in the Süleymaniye mosque. This ink was thus considered not only high quality but also efficacious in imparting the mosque's spiritual blessing (*baraka*).⁹¹

Calligraphers in the Muslim lands also used a variety of colored inks for rubrics, vocalization, and other decoration. Ibn Badis mentions red, yellow, and green as the most important colors,⁹² and these are frequently used as accent colors in early Koran manuscripts.⁹³ So is blue.

Metallic inks made of gold, silver, and copper were also used. Conservative prohibitions to the contrary, gold ink was used from early times. Fragments of a Koran on parchment in the Bibliothèque Nationale already show gold markings in the same style of writing as

that used for the calligraphy, and at least one early copy of the Koran written in gold ink has survived.⁹⁴ At least two techniques were used: gold ink (chrysography), and powdered gold regularly dispersed on a support to which glue had already been applied. The latter is recognizable because the glue often leaves a brownish stain where the gold has disappeared. The gold was applied, then burnished, and finally ringed with other colors to highlight the gilded motif.

The materials used for transcription have been analyzed only for a handful of early Islamic manuscripts in the Bibliothèque Nationale.⁹⁵ Despite the small size of the sample, these tests identified a group of materials characteristic of manuscripts produced in the Maghrib and distinct from those used in the east. In western manuscripts, for example, red was typically made from cochineal, a dye obtained from the crushed dried bodies of female insects, whereas in the east vermillion was used. Similarly, blue was produced from azurite in the west, but from lapis lazuli in the east. Artists in the west did not use the same range of products to prepare their colors, with yellows being the most different. These tests confirm the information about materials given in texts, such as that by Ibn Badis, who mentions that vermillion (*zanghafr*) and minium or red lead (*silqun*) were used for red ink, orpiment (*zarnih asfar*) for yellow, and verdigris (*zinghar*) for green.

The use of the same materials for text and decoration suggests that in early Islamic times the calligrapher may also have been responsible for the decoration. Colophons report the same thing.⁹⁶ By the early twelfth century in Iran, however, there seems to have been a division of labor between calligraphers and illuminators. A lavishly decorated manuscript of the Koran transcribed by 'Uthman ibn Muhammad at Bust (now in Afghanistan) in 505/1111-12 (Figure 6.6) was gilded, according to a small signature on the last folio, by 'Ali ibn 'Abd al-Rahman.⁹⁷ This division of labor continued in later times.⁹⁸ Spectrometric testing showed that a Koran manuscript copied in the Maghrib in the thirteenth or fourteenth century had azurite blue for diacritical marks, but lapis blue for marginal decoration, suggesting a similar division of labor between calligrapher and illuminator.⁹⁹ Koran manuscripts produced at that time in the east are signed by both calligrapher and gilder.¹⁰⁰

The calligrapher stored his ink in an inkwell called *dawat* or sometimes *miqbara*.¹⁰¹ Inkwells come in a variety of materials and shapes. Round glass pots were used in early Islamic times, but by medieval times the small glass receptacles for the ink were often encased in cylindrical containers made of glazed ceramic or inlaid wood or metal and elaborately decorated with figures and inscriptions. These containers can be round, square, or domed, sometimes resembling small buildings. Some later Iranian ones look like little tomb towers.¹⁰² Porcelain inkpots were popular in later times, and the Mughal calligrapher in the marginal illustration from the Jahangir album dips his pen into a blue-and-white inkwell (Figure 2.3).

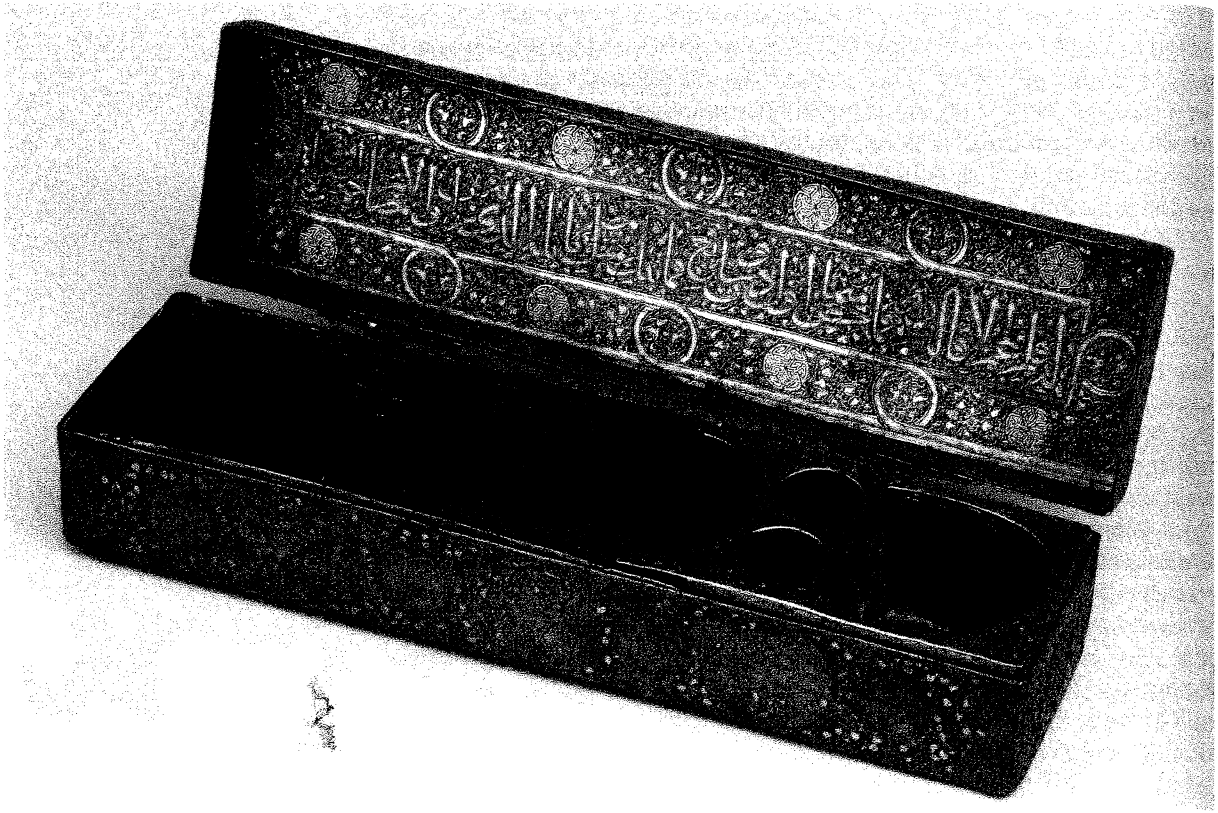


Figure 2.9 *Pen box of bronze inlaid with silver and gold dated 704/1304–5.*

Though the exterior of this pen box is abraded and missing its inlay, the interior is well preserved. The large oblong well was designed to hold reed pens; the curved well at the right held the inkpot, and the circular holes held containers for sand, starch paste or red ink.

Like other elements associated with writing, the inkwell became a symbol for mystics. Sufis in the tradition of the great Andalusian mystic Ibn 'Arabi, for example, interpret the letter *nun* in the opening words of Sura 68 '*Nun wa'l-qalam*,' as the shape of primordial inkwell that along with the primordial pen writes on the Well-preserved Tablet events to come.¹⁰³

The inkwell was often attached to or incorporated in the pen case and the entire unit also designated *dawat*. The domed cylindrical type of inkwell can come with an attached upright cylinder for the pens. Large rectangular boxes measuring some 30 cm long had separate compartments for both pens and inkwell. Prominent statesmen or scholars often had such pen cases with their names and titles inscribed across the lid; they seem to have been official insignia of office. Majd al-Mulk al-Muzaffar, grand vizier of the Khwarazmshahs, for example, had his lengthy titles inscribed in *naskh* around the lid of an inlaid brass example made by Shadhi in 607/1210–11.¹⁰⁴ The Mamluk statesman and scholar Abu'l-Fida (1273–1331) had his name inscribed in bold *thuluth* characters across the lid of his pen case.¹⁰⁵

Both of these rectangular pen cases are missing sections on the inside, but to judge from a large Mamluk example made in 704/1304–5 whose interior is intact (Figure 2.9), the ends of the boxes might have

contained a semicircular depression for the inkpot as well as two small round holes for containers of sand, starch paste, or red ink.¹⁰⁶ Made of brass inlaid with silver and gold, this example is inscribed with verses praising the reed pen and the pen box. It must have been for one of the learned 'men of the pen' at the Mamluk court.

In later times these rectangular pen boxes, like other implements for writing, came in a variety of fancy materials. The Chinese made them in blue-and-white porcelain for export to the Islamic lands. Iznik potters produced them too. The Ottoman court ordered others in bejeweled rock crystal.¹⁰⁷ Many later examples from Iran are made of varnished pasteboard and decorated with portraits or depictions of roses and nightingales.¹⁰⁸ Ottoman calligraphers also used a type of rectangular pen case with a separate inkwell (*huqqa*) on the side. The Ottoman calligrapher Mehmed Usta, for example, had one made of gilt silver dated 1187/1773 and inscribed with the *tughra* of Sultan Mustafa III.¹⁰⁹

Cylindrical and rectangular cases had to be carried with two hands, but another type of wedge-shaped pen box with a hinged or separate trapezoidal plate was more easily portable and could be worn suspended from the belt. Like rectangular cases, the wedge-shaped box had an inner removable section for storing the ink. Such a portable pen case may have been made as a set with a rectangular one, for Shadhi, the Herati craftsman who made the large rectangular one for the Khwarazmshah vizier Majd al-Mulk, also made a wedge-shaped one.¹¹⁰

To transport the ink, a small tuft of cotton, wool, or raw silk called *liqa* was inserted into the inkwell, and the ink poured over it. The wad absorbed the ink like a sponge so that the reed pen would take up only the requisite amount of ink, thereby preventing blobs when writing. The wad also ensured that the ink would not spill should the inkwell overturn.

Calligraphers in the Islamic lands thus used the finest materials and implements in their work. Let us now turn to what they wrote.

Notes

1. This chapter is intended as an overview; fuller explanations and more details can be found in the admirable study recently prepared by a team of French scholars and based mainly on the collections in the Bibliothèque Nationale in Paris: François Déroche, *Manuel de codicologie des manuscrits en écriture arabe* (Paris, 2000). For early manuscripts, see also the recent work by Ursula Dreibholz, *Frühe Koranfragmente aus der Grossen Moschee in Sanaa/Early Quran Fragments from the Great Mosque in Sanaa*, Hefte zur Kulturgeschichte des Jemen, 2 (Sanaa, 2003).
2. For a readable survey of the subject, see Richard Parkinson and Stephen Quirke, *Papyrus*, Egyptian Bookshelf (Austin, TX, 1995). For its use as a writing support in the Islamic lands, see Jonathan M. Bloom, *Paper before Print: The History and Impact of Paper in the Islamic World* (New Haven, 2001). On the materials used to make manuscripts in general but particularly in the medieval West, see Jonathan J. G.

- Alexander, *Medieval Illuminators and their Methods of Work* (New Haven and London, 1992), Chapter 2 and Michelle P. Brown, *Understanding Illuminated Manuscripts: A Guide to Technical Terms* (Malibu, CA, 1994).
3. Geoffrey Khan, *Bills, Letters and Deeds: Arabic Papyri of the 7th to 11th Centuries*, ed. Julian Raby, The Nasser D. Khalili Collection of Islamic Art (London, 1993); Parkinson and Quirke, *Papyrus*; Déroche, *Manuel*, 28–36.
 4. Yūsuf Rāḡib, 'L'écriture des papyrus arabes aux premiers siècles de l'Islam,' in *Les Premières Écritures islamiques* (Aix-en-Provence, 1990), 14–29.
 5. Khan, *Bills, Letters and Deeds*, 17.
 6. London, Khalili Collection, PPS84; Khan, *Bills, Letters and Deeds*, no. 127.
 7. Several of these papyrus fragments are published by Adolf Grohmann, 'The Problem of Dating Early Qur'ans,' *Der Islam* 33 (1958): 213–31.
 8. François Déroche, 'L'emploi du parchemin dans les manuscrits islamiques: quelques remarques préliminaires,' in *The Codicology of Islamic Manuscripts: Proceedings of the Second Conference of al-Furqān Islamic Heritage Foundation, 4–5 December 1993*, ed. Yasin Dutton (London, 1995), 17–57; Déroche, *Manuel*, 36–51; Jane Turner (ed.), *The Dictionary of Art* (London, 1996), 'Parchment.'
 9. Ursula Dreibholz, a conservator, points out reasonably that the skins of wild animals like gazelles were unsuitable because they are prone to scars and scratches; Dreibholz, *Quran Fragments*, 45.
 10. The same is not true of Western medieval manuscripts, in which the two sides are virtually indistinguishable. It may be that the flesh sides of parchments prepared in the Islamic lands were not sufficiently scraped; Dreibholz, *Quran Fragments*, 45.
 11. See also the detailed photographs in Dreibholz, *Quran Fragments*, fig. 27.
 12. BL, Or. 4684/III; my thanks to Dr Colin Baker, Head of Near and Middle Eastern Collections there, for identifying the text. Adolf Grohmann (*Arabische Paläographie I*, Österreichische Akademie der Wissenschaften Phil-Hist. Klasse. Denkschriften. Bd. 94/1 [Vienna, 1967], 111), followed by Déroche, *Manuel*, 42–3, pointed out its large size. The Byzantines used skins of approximately the same length, but narrower in width, to make rolls. The well-known Joshua Roll, made in Byzantium c. 950, for example, is composed of fifteen sheets, each measuring some 30 cm high and anywhere from 42 to 90 cm long. See Helen C. Evans and William D. Wixom, *The Glory of Byzantium: Art and Culture of the Middle Byzantine Era AD 843–1261* (New York, 1997), no. 162. Byzantine books were made by folding the sheet in half; the largest, such as the Trebizond Gospels (Evans and Wixom, *Glory of Byzantium*, no. 240), measures 46 x 37 cm.
 13. There are at least two leaves from a Koran manuscript on parchment tinted orange: MMA, ms. 40.161.100 and Khalili Collection, KFQ93; see François Déroche, *The Abbasid Tradition: Qur'ans of the 8th to the 10th Centuries AD*, ed. Julian Raby, The Nasser D. Khalili Collection of Islamic Art (London, 1992), no. 11, where he also notes that there are also saffron-colored fragments.
 14. *Maṣāʾiḥ ṣanʿāʾ* (Kuwait, 1985). Other pages apparently taken from this same manuscript were sold at Sotheby's on 22–23 October 1992; see Déroche, *Manuel*, 49 and pl. 11.
 15. Ursula Dreibholz, 'Some Aspects of Early Islamic Bookbindings from the

- Great Mosque of Sana'a, Yemen,' in *Scribes et manuscrits du Moyen-Orient*, ed. François Déroche and Francis Richard (Paris, 1997), 15–34.
16. On the geometric layout of the pages from one well-known manuscript, the Amajur Koran, see Alain Fouad George, 'The Geometry of the Qur'an of Amajur: A Preliminary Study of Proportion in Early Arabic Calligraphy,' *Muqarnas* 20 (2003): 1–16.
 17. For an exhaustive and synthetic history of paper in the Islamic lands, covering not only its practical but also its intellectual implications, see Bloom, *Paper before Print*; Helen Loveday, *Islamic Paper: A Study of the Ancient Craft* (London, 2001), provides a short practical guide.
 18. *The Latā'if al-Ma'ārif of Tha'ālībī/The Book of Curious and Entertaining Information*, trans. and intro. C. E. Bosworth (Edinburgh, 1968), 140.
 19. This suggestion was put forward by Dr Boris Marshak.
 20. Ibn Khaldūn, *The Muqaddimah: An Introduction to History*, trans. Franz Rosenthal, (New York, 1967) 2: 392.
 21. Malachi Beit-Arié, 'The Oriental Arabic Paper,' *Gazette du Livre Médiéval* 28 (Spring 1996): 9; Bloom, *Paper before Print*, 58. The manuscript remains unpublished and only the equivalent date in the Common Era calendar is given.
 22. The remains are divided between the shrine at Ardabil in north-eastern Iran, Istanbul University Library, and the Chester Beatty Library, Dublin (ms. 1434). See further, Chapter 5 and note 35.
 23. It has been the subject of a fine monograph by D. S. Rice, *The Unique Ibn al-Bawwāb Manuscript in the Chester Beatty Library* (Dublin, 1955) and is often cited and illustrated, probably because of its full (perhaps too full?) colophon that provides the name of the scribe, the date, and the place of production.
 24. One manuscript copied on parchment in Syria dates as late as 980/1572–3 (BN, ms. arabe 2547), but as Déroche notes, *Manuel*, 38, its use there is anecdotal.
 25. Translation and commentary by M. Levy, 'Medieval Arabic Bookmaking and its Relation to Early Chemistry and Pharmacology,' *Transactions of the American Philosophical Society* 40 (1962): 3–79.
 26. London, Khalili Collection, QUR561; David James, *The Master Scribes: Qur'ans of the 10th to the 14th Centuries AD*, ed. Julian Raby, The Nasser D. Khalili Collection of Islamic Art (London, 1992), no. 34; Bloom, *Paper before Print*, fig. 24.
 27. M. Uğur Derman, *Letters in Gold: Ottoman Calligraphy from the Sakip Sabanci Collection, Istanbul* (New York, 1998), fig. 4.
 28. FGA 54.116; Esin Atıl, *The Brush of the Masters: Drawings from Iran and India* (Washington, DC, 1978), no. 63.
 29. New York, MMA 1973.1; Annemarie Schimmel, 'Islamic Calligraphy,' *The Metropolitan Museum of Art Bulletin* 50, no. 1 (Summer 1992): fig. 25.
 30. London, Khalili Collection, QUR89; Déroche, *Abbasid Tradition*, no. 84. Déroche's close examination of the folios showed that the central bifolio of the three-folio quire was ruled open, whereas the other folios were ruled separately.
 31. Wheeler M. Thackston, *Album Prefaces and Other Documents on the History of Calligraphers and Painters*, Studies and Sources in Islamic Art and Architecture, Supplements to *Muqarnas* (Leiden, 2001), 13.
 32. In the Islamic lands paper was typically colored by dipping the sheets in a dye bath in contrast to many European papers, which were made from colored fibers. According to the eleventh-century bibliophile Ibn

- Badis (Levy, 'Medieval Arabic Bookmaking,' 40), saffron could also be added to the size, but this technique has not been observed in extant samples.
33. Wheeler M. Thackston, 'Treatise on Calligraphic Arts: A Disquisition on Paper, Colors, Inks and Pens by Simi of Nishapur,' in *Intellectual Studies on Islam: Essays Written in Honor of Martin B. Dickson, Professor of Persian Studies, Princeton University*, ed. Michel M. Mazzaoui and Vera B. Moreen (Salt Lake City, 1990), 219. Simi's identity was established by Yves Porter, 'Un traité de Simi Neysapuri (IX/XVe s.), artiste et polygraphe,' *Studia Iranica* 14, no. 2 (1985): 179–98.
 34. For a general overview of specialty papers in the Islamic lands, see Sheila S. Blair, 'Color and Gold: The Decorated Papers Used in Manuscripts in Later Islamic Times,' *Muqarnas* 17 (2000): 24–36; for Chinese papers, see Tsuen-Hsuei Tsien, *Paper and Printing*, ed. Joseph Needham, Science and Civilisation in China (Cambridge, 1985), 87–96. Colored paper was also exported to Japan, where purple or blue paper, with gold or silver ink, became popular from the mid-eighth century for transcribing sutras; see Miyeko Murase, *The Written Image: Japanese Calligraphy and Painting from the Sylvan Barnet and William Burto Collection* (New York, 2002), no. 4.
 35. The text is a treatise on Arabic rhetoric; see Arthur J. Arberry, *The Chester Beatty Library: A Handlist of the Arabic Manuscripts* (Dublin, 1955–66), no. 3658.
 36. Most of the manuscript is in the Bibliothèque Nationale (François Déroche, *Les Manuscrits du coran, du Maghrib à l'Inde*, Bibliothèque Nationale, Département des Manuscrits, Catalogue des Manuscrits Arabes [Paris, 1985], no. 308), but a few pages have been removed and are in the National Library of Russia (O. V. Vasilyeva, 'Oriental Manuscripts in the National Library of Russia,' *Manuscripta Orientalia* 2, no. 2 [June 1996]: 19–35).
 37. Yves Porter (*Painters, Paintings and Books: An Essay on Indo-Persian Technical Literature, 12–19th Centuries*, trans. Mrs S. Butani [New Delhi, 1994], 37–45) collected textual descriptions about the many materials Iranians used to dye paper in medieval times. The main vegetal dyes were saffron, tumeric, safflower, lac, other red dyes, sapanwood (a tree found in the Caspian region and the Deccan), henna, pomegranate bark, indigo, and sunflower-croton. Minerals include verdigris, orpiment, ceruse, and blue vitriol. In addition, mordants were often used to fix the colors during dyeing.
 38. Derman, *Letters in Gold*, 10–11, explains the steps used in Ottoman times. The dye was boiled in water, which was then poured through a sieve into a trough. The paper was soaked in the dye until it reached the desired color and then set aside to dry. As in Iran, most dyes were made from vegetable materials. Tea gave a cream or tan color, the most popular. The skins of pomegranates and walnuts produced brown; the seeds of dyer's buckthorn, yellow; logwood, red or purple; soot produced during the preparation of caramel, yellowish white; and onion skins, red.
 39. Several different methods were used there, including splashing or sprinkling with gold and using gold paint, gilding, or gold leaf.
 40. Istanbul, TIEM 1992 and TKS Ahmed III 3059; see Thomas W. Lentz and Glenn D. Lowry, *Timur and the Princely Vision* (Los Angeles, 1989), nos. 39 and 40.
 41. New York Public Library, Pers. ms. 41; Priscilla P. Soucek, 'The New

- York Public Library *Makhzan al-Asrār* and its Importance,' *Ars Orientalis* 18 (1988): 1–38; Lentz and Lowry, *Timur*, no. 138; Bloom, *Paper before Print*, cover.
42. Artists sometimes added drawings in the margins, as, for example, in the superb manuscript of Sultan Ahmad Jalayir's poems datable to Ramadan 805/March–April 1403 (FGA 32.30–37; Atil, *Brush of the Masters*, nos. 1–7). These drawings have provoked much speculation as they seem to be unrelated to the subject of the poems. Deborah Klimberg-Salter, 'A Sufi Theme in Persian Painting: The *Divan* of Sultan Ahmad Jalair in the Freer Gallery of Art, Washington, DC,' *Kunst des Orients* 11 (1976–7): 43–84, interpreted them as representing the seven valleys described in 'Attar's poem *Mantiq al-Tayr* (Conference of the Birds), but her explanation is not completely convincing, not the least because she does not take the folios in order, a necessary step if one were to interpret them as a visualization of 'Attar's seven valleys en route to enlightenment. Meaning or interpretation of the drawings aside, these pages are important in showing the interest in the margin that developed along with the other arts of the book in the late fourteenth and early fifteenth centuries.
 43. Porter, *Painters, Painting and Books*, 49–51, gives a short survey of gold-flecked paper. Simi's own treatise gives several recipes for making suspensions of gold, silver, copper, and bronze to paint on decorated papers; see the translation by Thackston, 'Treatise on Calligraphic Arts'. For the poetic anthology (BL, Add. 16561), see Basil W. Robinson, *Persian Miniature Painting from Collections in the British Isles* (London, 1967), no. 109; B. W. Robinson, 'The Turkman School to 1503,' in *Arts of the Book in Central Asia*, ed. Basil Gray (Boulder, CO, 1979), 241 and fig. 130. The calligrapher signs himself 'the royal scribe' (*al-katib al-sultani*) but it is not clear to which court he was attached.
 44. LACMA 73.5.599; Lentz and Lowry, *Timur*, no. 149; Linda Komaroff, *Islamic Art at the Los Angeles County Museum of Art* (Los Angeles, 1998), cover.
 45. BL, ms. Or. 2265; Stuart Cary Welch, *Wonders of the Age: Masterpieces of Early Safavid Painting, 1501–1576* (Cambridge, MA, 1979), nos. 48–65. The manuscript, one of the finest ever produced, deserves a monograph. See further, Chapter 10.
 46. See Chapter 10 for further details about these albums.
 47. See above, note 28.
 48. See Chapter 10 and Figure 10.6 for the biography of Mir 'Ali and other work by this renowned master.
 49. Virtually all the calligraphic specimens in the two albums prepared for the Mughal emperor Jahangir and the slightly later Kevorkian Album are signed by Mir 'Ali. On these two albums, see Chapter 10, note 60, and 12, note 24.
 50. Richard J. Wolfe, *Marbled Paper, its History, Techniques, and Patterns* (Philadelphia, 1991), is a convenient introduction to the technique, but concentrates on Western examples, a slightly odd perspective since the technique was clearly introduced to the West from somewhere in the East. More information about the technique as practiced in the Islamic lands is found in Porter, *Painters, Painting and Books*, 45–51. See also Yves Porter, 'Kāqāz-e abri. Notes sur la technique de la marbrure,' *Studia Iranica* 17 (1988): 47–55. For the most recent overview of the technique, see Nan B. Freeman, 'Historical Overview,' in *Ebrā Art, Marble on Paper, the Work of Feridun Özgören*, ed. Samar al Gailini (Bahrain, 2001), 8–16.

51. These arguments often fall out along nationalist lines, with Turks (or scholars of Turkish art) advocating a Turkish origin; Iranians (or scholars of Persian art) opting for Iran; and Indians (or scholars of Mughal art) opting for India. Porter, *Painters, Painting and Books*, 45–7, gives a good overview of the arguments regarding some of the sources and the problems in following them up.
52. BN, suppl. pers. 1798; Francis Richard, *Splendeurs persanes: manuscrits du XIIe au XVIIe siècle* (Paris, 1997), no. 49. It can be dated by comparison with a comparable album dated Rajab 853/July–August 1449 in the Chester Beatty Library (ms. 127; Lentz and Lowry, *Timur*, no. 103). The Beatty album has pages that are stenciled (Persian ‘aks or ‘akhsi), perhaps spattered or pressed with a piece of vellum soaked in a pale dye, a method that is described in the early nineteenth-century treatise on binding, *Risala-yi jild-sazi*, for which see Porter, ‘Kāqaz-e abri,’ 50 and n. 15. The pages in the Paris album are definitely splattered. I owe thanks to the papermaker Jake Benson, who spurred me with questions about marbling and provided details about the techniques used.
53. MMA 1997.71; first noticed by Freeman, ‘Historical Overview,’ 10. For further information about the calligrapher and his period, see Chapter 10 and notes 54 and 61.
54. Several examples of quatrains penned on blue marbled paper are illustrated in color in Samar al Gailani (ed.), *Ebrû Art, Marble on Paper, the Work of Feridun Özgören* (Bahrain, 2001), 11–12.
55. Mark Zebrowski (George Michell and Mark Zebrowski, *Architecture and Art of the Deccan Sultanates*, The New Cambridge History of India [Cambridge, 1999], 183), recently noted two superb pages of marbled paper in the Kronos Collection of New York that are decorated with matching chinoiserie patterns evoking weeping willow branches, outlined in gold. The inscription states that they were among the presents sent from Iran to Sultan Ghiyath al-Din Khalji of Mandu and entered the royal library on 11 August 1496. I owe this reference to Jake Benson.
56. The close relationship between gold-speckling and marbling is clear, for illustrated pages in this manuscript have gold-flecked borders whereas text pages have marbled borders. The alternation is reminiscent of the practice of compiling albums with a double page of calligraphic exercises with figural borders followed by a double page of paintings with abstract borders.
57. For festivals and other occasions, the Chinese made paper-cuts of animals, birds, and other figures, sometimes recounting entire folk tales. The earliest examples, unearthed in Xinjiang in 1959, date from the fifth century, and a group of paper flowers found at Dunhuang dates from the ninth or tenth century. See Turner, *DoA*, ‘China’ §XIV, 5.
58. TIEM, ms. 2474. The manuscript has just been brought to scholars’ attention by David J. Roxburgh, ‘The Aesthetics of Aggregation: Persian Anthologies of the Fifteenth Century,’ in *Islamic Art and Literature*, ed. Oleg Grabar and Cynthia Robinson (Princeton, NJ, 2001), 132–5, but no illustrations are shown.
59. The main part of the manuscript is in TIEM, ms. A. 1926; a few other pages including this one (LACMA 73.5.599) have been detached from it; see Lentz and Lowry, *Timur*, no. 149, who also give a translation of the poem on this page. Sultan Husayn’s poetry was not considered particularly inspired. Babur, the Timurid prince and bibliophile who fled

- to India where he founded the Mughal line, commented (citation in Lentz and Lowry, *Timur*, 360) that, 'Many couplets in his *diwan* are not bad; it is however, written in the same metre throughout.'
60. Linda Komaroff has confirmed for me that each folio consists of four sheets: two sheets of blue or green in the center that support the cut-out calligraphy like a window and two sheets for the margins or frame.
 61. This work is unsigned, but contemporary sources mention the names of a few practitioners of the art of *découpage* who worked at the court of Sultan Husayn. The best known is Shaykh 'Abdallah Haravi, known as *shikarin qalam* (sugary pen), who reputedly brought this art to perfection. Five signed specimens in his hand are preserved in the album compiled in 951/1544–5 for the Safavid prince Bahram Mirza (H2154; fols. 43 and 50; Chahryar Adle, 'Les artistes nommés Dust-Mohammad,' *Studia Iranica* 22, no. 2 [1993]: 235–6), and the copy of Sultan-Husayn's poetry may be Shaykh 'Abdallah's work as well. His son Dust Muhammad the cutter (*qata'*), not to be confused with Dust Muhammad the calligrapher and the compiler of the album, became an important *découpeur* in the early sixteenth century, whose work is also preserved in the Bahram Mirza album (H2154). He might or might not have been the same person as the painter Dust Muhammad, known as Dust-i Divana (Dust the mad or eccentric). Dust Muhammad was, in turn, the teacher of Sang 'Ali Badakhshani, as paper-cutting, like most calligraphic arts, was passed from master to pupil and often from father to son.
 62. Filiz Çağman, 'L'art du papier découpé et ses représentants à l'époque de Soliman le Magnifique,' in *Soliman le Magnifique et son temps: Actes du Colloque de Paris, Galeries Nationales du Grand Palais*, ed. Giles Veinstein (Paris, 1990), 249–64, suggests that the art appeared at the beginning of the sixteenth century simultaneously in the Safavid and Ottoman empires under the influence of Herati craftsmen, but the transferal of a single tradition seems more logical.
 63. TKS, EH 2851, fol. 1b–2a; Esin Atıl, *The Age of Sultan Süleyman the Magnificent* (Washington, DC, 1987), no. 18b; J. M. Rogers and R. M. Ward, *Süleyman the Magnificent* (London, 1988), no. 24.
 64. In addition to Çağman, 'Papier Découpé,' see Aimée Froom, 'Islamic Calligraphy and Paper-cuts by Fahri at the RISD Museum,' in *Glimpses of Grandeur: Courtly Arts of the Later Islamic Empires* (Providence, 1999), 8–11. Some of Fakhri's work was included in an album compiled in 980/1572–3 and later dedicated to the Ottoman sultan Murad III (Vienna, Nationalbibliothek, Cod. Mixt. 313; Dorothea Duda, *Islamische Handschriften I Persische Handschriften*, in *Die Illuminierten Handschriften und Inkunabeln der Österreichischen Nationalbibliothek*, Österr. Akademie der Wissenschaften, Phil.-Hist. Klasse, Denkschriften, 167 [Vienna, 1983], 109–60). Folio 40b contains a two-line specimen of cutout *nasta'liq* calligraphy signed by Fakhri, and folio 12b contains a fabulous two-tiered, cut-out garden scene that is attributed to him. Such paper-cuts continued to be produced in the seventeenth and eighteenth centuries and may well have been the source for European paper-cuts.
 65. As, for example, in Ahmad Karahisari's masterful frontispiece to a collection of pious texts done c. 1550 (Figure 11.8).
 66. See Chapter 13.
 67. *EI*/2: 'Kalam' is the best introduction to the textual sources. Written by the experts Clement Huart and Adolf Grohmann, it summarizes and gives references to the information in such medieval sources as

- al-Muqaddasi and al-Qalqashandi. The methods used by modern calligraphers (e.g., Mohamed Zakariya, *The Calligraphy of Islam: Reflections on the State of the Art* [Washington, DC, 1979], 7; Derman, *Letters in Gold*, 7–10; and Marie-Geneviève Guesdon and Annie Vernay-Nouri (eds), *L'art du livre arabe: du manuscrit au livre d'artiste* [Paris, 2001], 53–6) can be useful, but it is methodologically dangerous to assume that these techniques were necessarily used in earlier times. See also Déroche, *Manuel*, 112–20.
68. Derman, *Letters in Gold*, 7–10.
 69. Annemarie Schimmel, *Calligraphy and Islamic Culture* (New York, 1984), 119–22, gives many examples.
 70. Rumi is reputedly the best-selling poet in America today, but his canonization began long ago: the fifteenth-century Sufi poet Jami already dubbed Rumi's *Mathnavi* 'the Qur'an in the Persian tongue.' On the phenomenon of his popularity, see, among others, Carl W. Ernst, *The Shambhala Guide to Sufism* (Boston and London, 1997), 169–73. Rumi's *Mathnavi* is available in many editions; one of the most popular is that by R. A. Nicholson, which has been often reprinted (e.g., Jalāl al-dīn Rūmī, *Mathnavī-yi Ma'navī*, ed. Reynold A. Nicholson [Tehran, 1341]. Nicholson also wrote one of the first studies of Rumi in English, which includes a translation of these famous lines entitled 'The Song of the Reed': Reynold A. Nicholson, *Rumi: Poet and Mystic, 1207–1273* [New York, 1974], 31). See chapter 9 and Figure 9.1 for the earliest manuscript of Rumi's famous work.
 71. Hasan Massoudy, *Calligraphie arabe vivante* (Paris, 1981), 14, cited in Schimmel, *Calligraphy and Islamic Culture*, 120 and n. 35.
 72. Compare the medieval descriptions in the article 'Ḳalam' in *EI*/2 and Derman, *Letters in Gold*, 7.
 73. *Letters in Gold*, 9–10.
 74. Their posture thus corresponds to that of ancient Egyptian calligraphers, as shown by the famous statue of seated scribe in the Louvre (E3023); Bloom, *Paper before Print*, 23. It contrasts to Chinese calligraphers who generally wrote on tables. The scholar's table was the repository for the *wenfang si bao*, four treasures of the scholar's studio: the inkstone, ink-stick, brush, and paper. See Turner, *DoA*: 'Scholar's Table' with further references. The differences are due in part to the nature of the support: if only a small section of the papyrus roll was exposed, the papyrus was sufficiently stiff to allow the scribe to pen his text; Chinese calligraphers, by contrast, wrote on much more supple supports, typically silk or paper, that required a firm support.
 75. Franz Rosenthal, 'Abū Ḥaiyān al-Tawḥīdī on Penmanship,' *Ars Islamica* 13–14 (1948): 5. On Abu Hayyan al-Tawhidi, see further, Chapter 5.
 76. Mīr Munshī Qummī Qāḍī Aḥmad, *Gulistān-i hunar*, ed. Aḥmad Suhaylī-Khānsārī (Tehran, 1352/1974), 71; Qāḍī Aḥmad, *Calligraphers and Painters: A Treatise by Qāḍī Aḥmad, Son of Mīr-Munshī (Circa AH 1015/AD 1606)*, trans. V. Minorsky, Occasional Papers (Washington, DC, 1959), 115.
 77. Vlad Atanasiu is one of few to work from extant examples as well as textual references. His study of the flow of ink, 'Le retroencrage: déduction du ductus d'une écriture d'après l'intensité de l'encre,' *La Gazette du Livre Médiéval* 37 (Autumn 2000): 34–42, also available on-line with color illustrations at <http://mywebpage.netscape.com/atanasiu-vlad/ductus/index.html>, shows what important results can be obtained from such a study.

78. Heinz Halm, *The Empire of the Mahdi: The Rise of the Fatimids*, trans. Michael Bonner, Handbuch der Orientalistik 1:26 (Leiden, 1996), 370-1; I owe this reference to Jonathan Bloom.
79. St Petersburg, Hermitage, CA-12688; *Masterpieces of Islamic Art in the Hermitage Museum* (Kuwait, 1990), no. 28.
80. V. A. Krachkovskaya, 'Evolutsiya Kuficheskovo Pis'ma v Sredney Azii,' *Epigrafika Vostoka* 3 (1949): fig. 4. The fragment is a rare, if not unique, example of a Samanid ceramic with a historical inscription; most pieces have aphorisms; see Sheila S. Blair, *Islamic Inscriptions* (Edinburgh, 1998), 151-2.
81. See above, Chapter 1.
82. Paris, Louvre, MAO 331 and LP 16; Esin Atıl, *Renaissance of Islam: Art of the Mamluks* (Washington, DC, 1981), nos. 20 and 21. For the various ranks of Mamluk amirs and their emblems, see Estelle Whelan, 'Representations of the *Khāṣṣakīyah* and the Origins of Mamluk Emblems,' in *Content and Context of Visual Arts in the Islamic World*, ed. Priscilla P. Soucek (University Park and London, 1988), 219-54.
83. For example, the depiction of Hushang, King of the world, from the Arabic version made c. 1315; Edinburgh University Library, ms. Arab 20; David Talbot Rice, *The Illustrations to the 'World History' of Rashid al-Din*, ed. Basil Gray (Edinburgh, 1976), no. 3. For the reconstruction of the manuscript and its correct date, see Sheila S. Blair, *A Compendium of Chronicles: Rashid al-Din's Illustrated History of the World* (London, 1995).
84. *EI* 2, 'Midād'; Turner, *DoA*, 'Ink' (ii).
85. Levy, 'Medieval Arabic Bookmaking.'
86. Many examples cited in Schimmel, *Calligraphy and Islamic Culture*.
87. E.g., mss. arabe 330c and 324c; Déroche, *Manuel*, 123 and n. 72.
88. Bloom, *Paper before Print*, 107.
89. Porter, *Painters, Painting and Books*, 63, citing 'Abdallah Kuhdizi, an Iranian calligrapher active during the reign of the Mughal emperor Akbar.
90. Qāḍī Aḥmad, *Gulistān*, 69; Qāḍī Aḥmad, *Calligraphers and Painters*, 112.
91. Annemarie Schimmel, *Islamic Calligraphy, Iconography of Religions* XXII, 1 (Leiden, 1970), 40.
92. Levy, 'Medieval Arabic Bookmaking,' 21-2.
93. Good color illustrations in Dreiholz, *Quran Fragments*.
94. BN, ms. arabe 330c, for which see François Déroche, *Les Manuscrits du coran, aux origines de la calligraphie coranique*, Bibliothèque Nationale, Département des Manuscrits, Catalogue des Manuscrits Arabes (Paris, 1983), no. 268. Most of the copy in gold is in the Nurosmāniye Library in Istanbul (ms. 27), with detached leaves in the Khalili Collection (KFQ 52) and elsewhere; see Déroche, *Abbasid Tradition*, no. 41.
95. Déroche, *Manuel*, 124-67.
96. The colophon in the so-called Nurse's Koran endowed to the Great Mosque of Kairouan in 410/1020 (Figure 5.5) states that the same person was responsible for transcription, vocalization, illumination, and binding (B. Roy and P. Poinssot, *Inscriptions arabes de Kairouan* [Paris, 1950-8], nos. 9b and c), although François Déroche has suggested that this statement may be an exaggeration.
97. Déroche, *Manuscrits du coran II*, no. 522; Richard, *Splendeurs*, no. 1.
98. The testing carried out on the manuscripts in the Bibliothèque

Nationale suggested that the materials used for illumination might also be distinct from those used for illustration. A copy of al-Idrisi's Geography (ms. arabe 2221) made in the Maghrib in the thirteenth century used materials and pigments not found in the other manuscripts tested. These included such colors as rose-violet, yellow ocher, and compound green, as well as white lead to brighten the colors. This manuscript was the only one of the group tested to have full-page paintings, so further work needs to be done to ascertain the distinction between illumination and illustration.

99. BN, ms. arabe 6935; Déroche, *Manuscrits du coran II*, no. 302; Déroche, *Manuel*, 152–3.
100. Sheila S. Blair, 'Scribes and Artists in the Ilkhanid Scriptorium,' *Beyond the Legacy of Genghis Khan*, ed. Linda Komaroff (Leiden, 2006).
101. *EI*/2, 'Dawāt.'
102. A. S. Melikian-Chirvani, 'State Inkwell in Islamic Iran,' *Journal of the Walters Art Gallery* 44 (1986): 70–94.
103. Annemarie Schimmel, 'The Book of Life-Metaphors Connected with the Book in Islamic Literatures,' in *The Book in the Islamic World: The Written Word and Communication in the Middle East*, ed. George N. Atiyeh (Albany, 1995), 75.
104. FGA 36.7; Esin Atıl, W. T. Chase, and Paul Jett, *Islamic Metalwork in the Freer Gallery of Art* (Washington, DC, 1985), no. 14; Blair, *Islamic Inscriptions*, fig. 9.51.
105. Atıl, *Renaissance*, no. 24.
106. Paris, Louvre, 3621; Atıl, *Renaissance*, no. 23.
107. Atıl, *Süleyman the Magnificent*, gives several examples.
108. Turner, *DoA*, 'Islamic art' VIII, 10: Lacquer.
109. Derman, *Letters in Gold*, fig. 5.
110. Atıl, Chase, and Jett, *Islamic Metalwork in the Freer Gallery of Art*, 106; Melikian-Chirvani, 'State Inkwells,' fig. 21.

Part II: The Development of Arabic Script in Early Islamic Times

The Standardization of Arabic Script

A SYSTEM OF writing Arabic had already developed in pre-Islamic times. The script was derived from Aramaic, a script used to transcribe a variety of languages spoken in the Mediterranean region and west Asia. Driven by the need to administer a large empire, scribes in early Islamic times regularized and standardized this Arabic script. The desire to write down the text of the Koran, which had been revealed orally, also seems to have stimulated the development of fine calligraphy already in the seventh century. No dated manuscripts have survived from this early period, so to trace the development of Arabic calligraphy at this time, we must look to other kinds of more fixed evidence, notably papyri, coins, and inscriptions. Using dated or datable examples in these media, it is possible to follow the increasing regularization and standardization of Arabic script and the development of a style that came to be used throughout the Umayyad realm, from the Mediterranean to Central Asia, as well as a more formal rectilinear style used for manuscripts.

The origins of Arabic script

The exact origins of the Arabic system of writing are open to question. The script is ultimately derived from that used for writing Aramaic, the lingua franca of south-west Asia from early in the first millennium BCE to the time of the Arab conquest in the mid-seventh century CE. Aramaic script was used not only for Aramaic languages, such as Syriac, but also for many other types, including Iranian and Altaic languages. For many generations scholars have fiercely debated which of these languages written in Aramaic was the immediate source for Arabic script. Two main hypotheses have been put forward, and the date of the first surviving inscription in Arabic script depends in part on the author's view of the immediate source for that script.

The older, more traditional, and more widely cited argument is that the script used for writing Arabic developed from the type of Aramaic script used by the Nabateans. The Nabateans, centered around Petra in southern Jordan, spoke Arabic but wrote in Aramaic script. Their kingdom reached its heyday in the second century CE, but Nabatean Aramaic script is also known from late inscriptions

dating to the third and fourth centuries CE. The best-known inscription is the one discovered by René Dussaud in 1901 at the site of al-Namara, the fortified post of Safa located some 120 km south-east of Damascus.¹ Its five-line text of Arabic words incised in Nabatean characters on a basalt lintel records that the building was the tomb of the Arab prince Imru'l-Qays, who died in 328 CE. Its carefully planned and cut letters, which are spaced by lines, attests to a fine tradition of stereotomy. Other inscriptions discovered more recently and dating to the early centuries of the Common Era are likewise Arabic texts written in Nabatean characters.² Supporters of the Nabatean hypothesis take these inscriptions as the first evidence of the Arabic language, if not its script. First put forward by Theodor Nöldeke in 1865, summarized by Bernhard Moritz in his 1910 article 'Arabie' in the first edition of the *Encyclopaedia of Islam*, and reiterated by Nabia Abbott in her seminal book on the rise of North Arabic script, the Nabatean hypothesis remains the favorite of most scholars, especially Anglo-Saxons, and is often given as the sole explanation for the origin of Arabic script.³

The difficulty with the Nabatean hypothesis lies in explaining the chronological gap between the heyday of Nabatean civilization and the rise of Arabic. To circumvent this problem, Adolf Grohmann pushed back the origins of Arabic script before 350 CE, close to the date of the inscription from al-Namara as well as its more recently discovered contemporaries.⁴ But for many, the earliest examples of Arabic script (as distinct from the language) are several inscriptions found in Syria that date from the sixth century. They include a trilingual inscription in Arabic, Greek, and Syriac dated 512 from Zebed in the Syrian steppe south-east of Aleppo and three inscriptions dating between 528 and 568 CE found to the south and south-east of Damascus.⁵ Grohmann's early date for the rise of Arabic script has not been widely accepted, and other scholars have proposed an alternate hypothesis to explain the origins of Arabic script from Aramaic in the fifth or sixth century CE.

This second and more recent hypothesis, put forward by J. Starcky in 1966, is that the origins of Arabic script should be traced to the Syriac alphabet.⁶ Such an idea was already current among Muslim scholars of the eighth and ninth centuries. The historian al-Baladhuri, for example, reports on the basis of several earlier sources that Arabic writing had been invented in Mecca by three members of the tribe of Tayy who had used the Syriac alphabet as a model.⁷ Starcky adjusted the argument slightly, arguing that the immediate precursor of Arabic script was the cursive chancery Syriac used at the court of the Lakhmid kings of al-Hira, located near Kufa in southern Iraq. On the whole, this hypothesis of a Syriac origin for Arabic script has been disregarded by Anglo-Saxons but heartily accepted by French scholars.⁸

Most of the earlier studies on the origins of Arabic script have concentrated on comparing the individual letters used in the different

languages, producing charts with the forms of the individual letters in different languages in adjacent columns.⁹ Françoise Briquel-Chatonnet has recently argued that such an approach is inadequate, because it gives priority to a script's technical qualities and individual forms rather than its general principles and aspect and because it disregards the historical context in which the script was created. On these grounds she again raised the argument for the Syriac origin of Arabic script.¹⁰ Briquel-Chatonnet posited that two general traits distinguish Syriac from Nabatean. In Syriac, the letters are posed on an ideal baseline, whereas in Nabatean they are suspended from it. The proportions of the letters also differ in the two scripts: in Syriac, the letters are spread out and flattened and are usually wider than they are tall, but in Nabatean they are elongated and usually taller than they are wide. The earliest Arabic writing on papyrus and monuments, she argued, shares both characteristics – position on (not below) an ideal baseline and squat shape – with Syriac.

Briquel-Chatonnet also opted for a Syriac origin of Arabic script on historical grounds, arguing that in the centuries before the rise of Islam, Syriac was more prestigious than Nabatean. Nabatean script, she argued, had gone out of fashion by the sixth century and was used mainly for graffiti and ostraca. In the same way, other south Arabian scripts used in pre-Islamic times that were actually more suitable for writing Arabic had also fallen out of fashion and hence were not ultimately adopted for writing it. Syriac, by contrast, had blossomed in the period before the rise of Islam. Inscriptions in Syriac have been found north of Raqqa in Syria near the sites of the earliest Arabic inscriptions dating from the sixth century. Briquel-Chatonnet therefore abandoned the al-Hira intermediary of the Syriac hypothesis, arguing in favor of a more Western source in the Christian-speaking Aramaic community that expanded in Syro-Palestine after the fall of the kingdom of Edessa in the mid-third century CE.

Other scholars have documented the well-established tradition of writing Syriac in the centuries before the rise of Islam.¹¹ The earliest dated Syriac manuscript to survive (BL Add. 12150) was produced at Edessa in 411 CE and shows a well-developed calligraphic style. It is written in the script known as *estrangelo*. Several other dated manuscripts allow us to trace the development of this script until it was replaced by the *serto* script in the late eighth century.¹²

Briquel-Chatonnet's argument of a Syriac origin for the Arabic script deserves serious consideration for several reasons. She has moved the argument about script to a more sophisticated level, articulating principles and aspect, not just comparing individual graphemes or letters, and addressing the historical context. At the very least, her article suggests that the discussion about the origins of Arabic script is not closed and that the Nabatean hypothesis is not unilaterally accepted.¹³

Whatever the immediate source, Aramaic script had to be adapted for writing Arabic. Since Arabic has more consonants than other

north-west Semitic languages, diacritical marks had to be introduced to expand the limited repertory of eighteen different graphemes, or characters, to record the twenty-eight phonemes, or sounds, used in Arabic. Furthermore, Arabic script did not maintain a monumental form, in which the letters are written separately from each other, but used only a cursive form, in which the letters are connected, and all Arabic writing is characterized by ligatures between letters.

The development of Arabic script in the seventh century

Arabic was definitely written in Arabia by the time of the Prophet Muhammad. Poets writing before and after the advent of Islam refer to writing, both directly and indirectly, and copies of their poems collected by grammarians in the late eighth and early ninth centuries contain visual mistakes that could have occurred only in transcribing a written text.¹⁴ Writing is also mentioned in the Koran, the message recited orally by Muhammad. The text itself is called a writing (*kitab*), and it is filled with technical terms about writing, such as reed pen or calamus (*qalam*) and tablet (*lawh*).¹⁵ The diverse accounts relative to Muhammad, including the Prophetic Traditions, biographies of him, and lists of his secretaries, also show that in the late sixth and early seventh centuries knowing how to write was in no way exceptional.¹⁶

To explain the development of Arabic script, Estelle Whelan used the analogy of a tree trunk, itself continuously growing, from which a series of specific stylized scripts branched off independently.¹⁷ All surviving evidence, albeit scarce and piecemeal, suggests that in this early period writing in Arabic script developed two different branches, probably derived from the cursive and monumental forms of Aramaic script used in other languages: a more free-flowing style for recording transactions of daily life and a more formal style for monumental inscriptions, numismatics, and eventually manuscripts of the Koran.

We can trace the development of the everyday style from the early seventh century onward through dated papyri and graffiti.¹⁸ Adolf Grohmann estimated that some sixteen thousand fragments of papyri survive from the first centuries of Islam.¹⁹ Most are in extremely poor condition. Unlike Greek and Latin papyri that were handed down from generation to generation, Arabic examples were typically found in the rubbish dumps of old towns, mixed with pot sherds, slag, cinder, coals, rags, straw, and kitchen waste. These rubbish dumps contained a valuable type of dung (*sibakh*) exploited since the nineteenth century, particularly in the cultivation of cotton, and dung diggers often further damaged the papyri, rendering most of them fragmentary. The vast majority of these papyri come from Egypt, as the dry climate there insured better preservation. A few were found in Syro-Palestine, but none relate to the Hijaz or Iraq, the two areas most often identified with the development of calligraphy in this early period of Islam.

Although most Arabic papyri date from the eighth century or later, a group of some two dozen dated examples allows us to sketch the development of writing in the first century of Islam.²⁰ The earliest (PERF 558 from the Erzherzog Rainer papyrus collection in Vienna) is a bilingual record requisitioning sixty-five sheep from the people of Ihnas (Herakleopolis) in upper Egypt to be slaughtered for the troops of 'Abdallah ibn Jabir in 22/643–4.²¹ The text is written in a fairly well-developed script, with spaced lines and words composed of regularly shaped letters pointed with a generous sprinkling of dots.²²

By the end of the seventh century a more uniform script had developed, probably as part of the reform of the bureaucracy carried out under the Umayyad caliph 'Abd al-Malik (r. 685–705). This standard script can be seen in official documents issued by the Umayyad chancery, such as a letter from Qurra ibn Sharik, governor of Egypt from 709 to 714 under al-Walid, to the ruler of Asfuh (Figure 3.1).²³ The letter was part of a large cache of papyrus documents found in 1901 in Upper Egypt at the site of Aphrodito, now the village of Kom Eshqaw, seven kilometers south-west of Tima.²⁴ Some, like the one illustrated, are in Arabic; others are in Greek; still others are bilingual in Arabic-Coptic or Arabic-Greek.

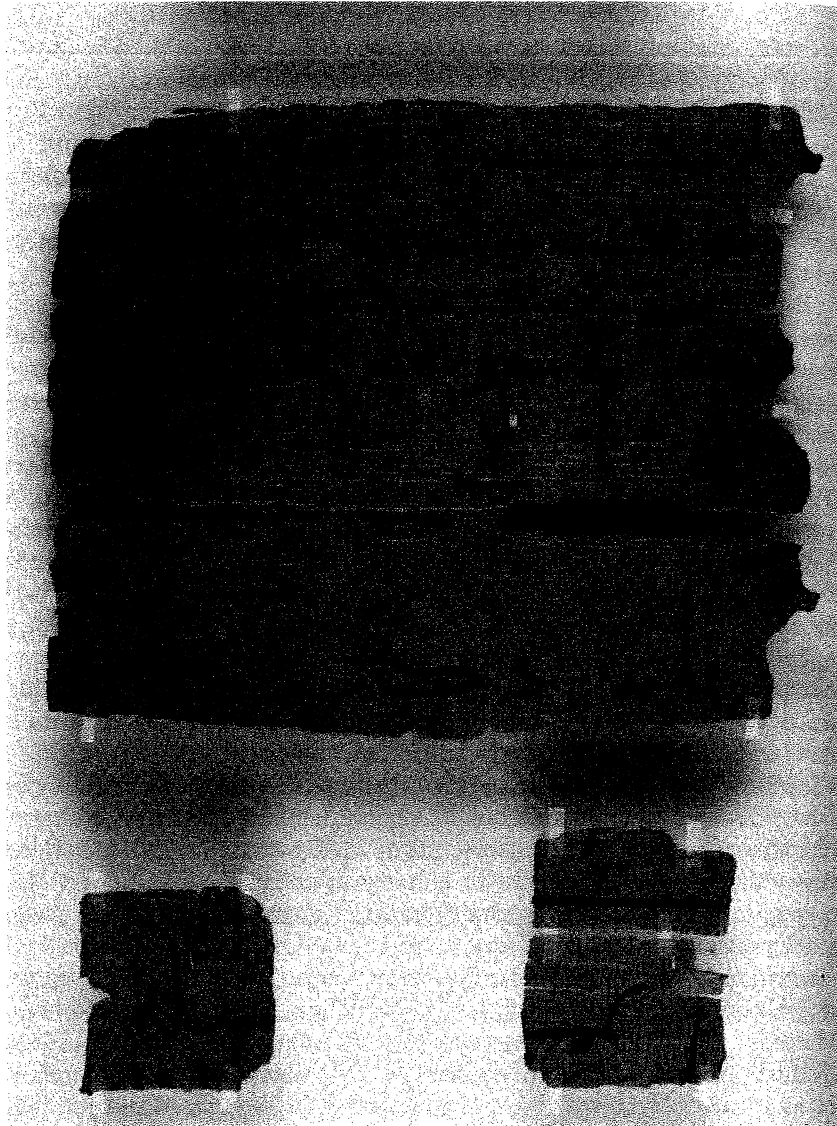
The letters shows the hand of a government scribe, to whom correct style was important. Literary sources frequently stress the importance of a clear and well-formed script in official documents.²⁵ Bad handwriting could cause a petition to a high official to be rejected regardless of its contents.²⁶ Legibility was clearly a problem in early Islamic times: Yusuf Ragib cited a case in which a secretary in charge of correspondence for the governor of Medina misread a letter from the caliph Hisham with tragic effect: rather than count (*akhṣī*) the city's entertainers, the governor had them castrated (*iḥṣī*).²⁷ To avoid such mistakes, diacritical marks were used occasionally in official correspondence, as in the stroke over the *nun*, the third letter in the third strip, but they were not standard. Their use was recommended in disciplines such as grammar, language, poetry, and rare Traditions (*gharib*), but surviving literary papyri show that even there they were often omitted.²⁸ Only in the tenth century did they become standard in book scripts (see Chapter 5).

The most notable features of the script used in the papyri are the extensions of and between letters, as in the tail of final *ya'* that extends backward under the word *alladhi* in the second line of the second strip. Even more dramatically, in the top strip the final *kaf* of *sharik* in the second line is extended, as is the connector between *ha'* and *mim* in *al-rahman* in the line above.

The script used for the text in the body of official letters and documents issued by the Umayyad chancery can be distinguished from that used on the protocol of a papyrus scroll (Figure 2.2).²⁹ The protocol was written with a brush, using broad flowing strokes and many loops and connections between letters that are not permitted in other styles. There are no dots. Despite (or perhaps because of) the

Figure 3.1 *Letter on papyrus from the chancery of Qurra ibn Sharik to the sovereign of Asuh, c. 710.*

Part of a cache of documents found at Aphrodito in Upper Egypt, this letter shows the official script used by scribes in the Egyptian chancery during Umayyad times. Like contemporary monumental inscriptions, it uses elongation for emphasis and diacritical strokes to clarify letters in important or potentially confusing words.



formulaic text in the protocol, the script itself is extremely individualized, possibly, as Gruendler suggested, because the cryptic aspect of these cover sheets served as a mark of authenticity preventing misuse and imitation.³⁰

The chancery script found in the letter from Qurra ibn Sharik belonged to a style that was used throughout the Umayyad realm. The same style is found, for example, in a short text, possibly from a letter, from the caliph al-Hisham (r. 724–43) to his nephew and successor al-Walid II written on a marble plaque found at the Umayyad site of Qasr al-Hayr al-Gharbi in Syria.³¹ This style can be taken as typical of the period, for many of the same features appear in a better

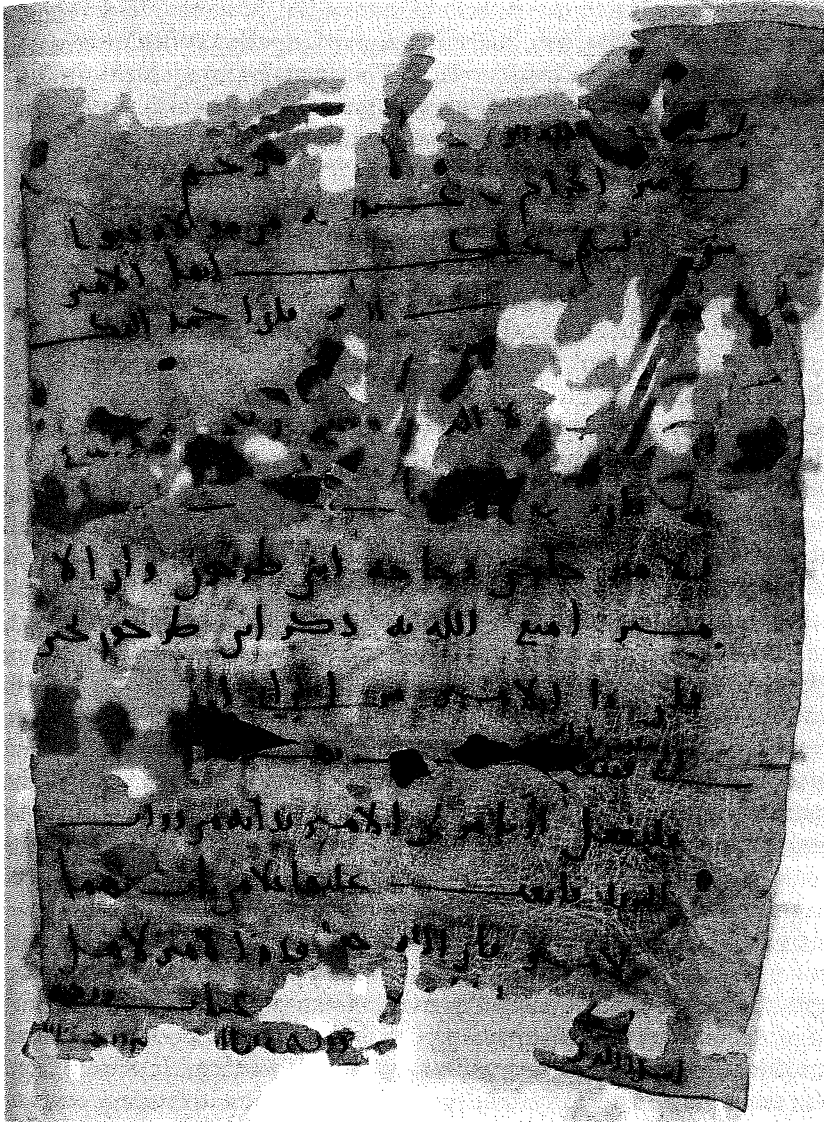


Figure 3.2 Letter in black ink on leather from Divastich, last ruler of Panjikent, to the amir al-Jarrah ibn 'Abdallah.

This letter was found in the 1933 excavations at Mt Mugh in the ruins of a castle in the Zerafshan Valley. Datable to 718–19 because of the dates of al-Jarrah's service, it shows that the round style of script typical of the Umayyad chancery was also used in Central Asia and that pointing was standard for names.

preserved letter (Figure 3.2) found in 1933 at Mt Mugh in the Zerafshan Valley of Central Asia alongside Sogdian manuscripts, a Chinese document, and various other objects. Transcribed in velvety black ink on yellowish leather, the letter is written in the name of Divastish, the last ruler of Panjikent, to the Arab amir al-Jarrah ibn 'Abdallah. It can be dated precisely because al-Jarrah was in office for seventeen months in 99–100 (718–April 719).

Penned in the firm hand of an experienced secretary, the letter from Mt Mugh shows many of the letter shapes and conventions used elsewhere, such as long initial 'ayn, dal and kaf with an extra hook, and extended letters and connectors (all visible in Figure 3.2a) and



Figure 3.2a



Figure 3.2b



Figure 3.2c

final *ya'* returning to the right in (Figure 3.2b). Nevertheless, it is not as finely written as the letter on papyrus, perhaps because of the unevenness of the tanned surface. The letters are squatter and the horizontal strokes bumpier. The space between lines also varies, with wider spacing at the top, but more cramped lines near the bottom, probably because the scribe realized that he was running out of space in which to fit the sixteen lines on the single piece of leather measuring 26 by 19 cm. The scribe was also interested in speed, for he sometimes did not lift his pen. For example, he wrote medial and final *'ayn* with one fluid stroke to make an upside-down triangle (Figure 3.2c) rather than the V with antennae used elsewhere. The scribe was also intent on legibility. The words are clearly spaced, and the names of several people – including that of Divastish, whose name is divided between the end of line two and the beginning of line three, and those of several amirs in line eight – are pointed.

Variations of the same style can be found on many of these early papyri, especially those of an official nature. Geoffrey Khan enumerated ten characteristic letter shapes of this script.³² Independent *alif* bends to the right at the bottom and is taller than the other vertical strokes. *Dal* has a little hook at the top. The body of certain letters, particularly *kaf* and *sad*, is elongated.³³ The base of initial *'ayn* extends to the right, whereas medial *'ayn* is written like a V with antennae. The tail of final *qaf* extends downward vertically before bending to the left. It can thus be distinguished from final *fa'*, which is elongated in a straight line. The tail of final *ya'* extends far to the right underneath the word that it ends and sometimes beyond to the previous word. Khan also called attention to several conventions used in the script on papyri, such as elongation of letters and connectors and the separation of letters in a word.

Such features are most commonly found on official documents, but typically the script used in day-to-day business correspondence and accounts was not carefully and consistently executed according to a specific standard (*muhaqqaq*), but rather a poorly executed unofficial script used for popular purposes (*mutlaq*). It differs from the well-written script used in state documents and literary texts of high standing, but even there, a scribe's performance sometimes fell short of the style at which he aimed. In this sense, the script used on many papyri often reflects personal handwriting, rather than the characteristics of a given 'school' or style.

The evolution of a calligraphic style

The evidence from papyri, then, helps us to sketch the development of Arabic script in the early centuries of Islam. It is less help in tracing the development of a calligraphic style, which seems to have developed along another path, or was, using Whelan's metaphor, another branch of the writing tree. Such a script would have been used for fine manuscripts, but we have no dated examples of such

manuscripts, particularly copies of the Koran, and some scholars, notably John Wansbrough, have denied that they ever existed, thereby challenging the traditional Muslim view about the writing down of the Koran and arguing that a canonical text was established only at the end of the eighth century.³⁴ Whelan has rebutted this argument.³⁵ Citing forgotten witness, mainly evidence from inscriptions and scattered references in texts, she showed that already by the seventh century an established group of calligraphers (*ashab al-masahif*) penned fine copies of the Koran in the city of Medina. The specific area where these Koran manuscripts were transcribed and sold was located near the west end of Balat al-A'zam, the paved street extending west from the Prophet's mosque to the prayer ground (*musalla*). Whelan also collected the names of at least three people who had copied the Koran professionally there in the last quarter of the seventh century and the beginning of the eighth: Sa'd, Khalid ibn Abi'l-Hayyaj, and 'Abd al-Rahman ibn Hurmuz ibn Kaysan al-A'raj. All her evidence leads to the conclusion that the Muslim tradition is reliable, at least in broad outline, in attributing the first codification of the Koranic text to the early Islamic period, if not specifically to the reign of the caliph 'Uthman.³⁶ Copies of the sacred text were needed to propagate the new faith and weld the diverse peoples of the rapidly expanding empire into a relatively unified polity, as Arabic script – like seal script in China – was a tool in fostering cultural coherence.³⁷

Since we have no dated manuscripts or fragments to identify what this early Arabic script looked like, we have to examine ancillary sources that are dated, such as monumental inscriptions and coins. Each medium offers certain advantages, but each also has its own limitations and idiosyncrasies. Monumental inscriptions, like the texts on papyri, vary in length and formality. The vast majority are graffiti.³⁸ Ranging in length from a few words to several lines, they were inscribed at major holy sites or along pilgrimage routes like the Darb Zubayda connecting Iraq with the shrines in Arabia. Most of these graffiti, like many of the day-to-day papyri, are not very helpful in tracing the evolution of calligraphy, as they tell us more about the development of ordinary handwriting than about the development of artistic style(s).

The longest and most important graffito to survive from early Islamic times is the foundation text scratched in the rock near Ta'if in the Hijaz (Figure 3.3), recording the construction of a dam by the Umayyad caliph Mu'awiya in 58/677–68.³⁹ The letters in the six-line text are well-formed, compact, and clear; fifteen of them, including the letters *ba'*, *ta'*, *tha'*, *nun* and *ya'*, are pointed (Figure 3.3a). In addition to documenting the shapes of individual letters, the inscription provides evidence about the conventions used in writing longer excerpts and organizing a line or page. The words are spaced, and certain letters there, particularly *dal* and *sad* but also the final *ba'* in *kataba*, are extended horizontally. By stretching out horizontal

Figure 3.3 Foundation inscription carved on a rock near Ta'if in the Hijaz in 58/677–8.

The text, one of the few monumental inscriptions to survive from early Umayyad times, commemorates the construction of a dam by the Umayyad caliph al-Mu'awiya. The engraved letters show that a squat and rectilinear script was standard in Arabia by the third quarter of the seventh century. Diacritical marks are used extensively, and words are divided between lines without regard to meaning, perhaps to enhance the symmetry and visual impact of the inscription.



هذا السب لىك الله معويه
 امد المومنينه عك الله بر طهر
 باكر الله لىسه ثمر وحمسيرا
 اللهم اعمد لىك الله معويه ا
 مد المومنينه وانظده ومنتجا
 (مدا) لمومنينه كىب عمرو ر حباب

Figure 3.3a

letters and connectors, the scribe 'Amru ibn Janab varied rhythm and spacing. This convention of elongation is of fundamental importance in laying out the text in fine manuscripts of the Koran.

Words in the Ta'if inscription are divided between unconnected letters. Lines three, four, and five all end in *alif*, the opening letter of the word that continues on the next line. The reader was not expected to pause at the end of a line, but rather to read seamlessly from the end of one line to the beginning of the next without a break. This division in the middle of (rather than between) words also shows that decorative effects were already important at this early date, for the *alifs* with a bent right foot written at the end of the middle lines form a pattern balanced by the similar vertical strokes that begin lines two, three, and four (*alif*, *ba'-alif*, and two *lams*, respectively).

The inscription scratched in the rock at Ta'if, like many papyri, tells us about ordinary writing, but coins provide more ample evidence showing how the written word became increasingly important as the official signifier of Islam and the caliphate over the course of the seventh century. Not only are coins numerous and well preserved, but they also have the tremendous advantage of being dated, if not to a precise year, then to the reign of a particular ruler. Issuing coins is the prerogative of the government, and thus the writing on coins represents an officially sanctioned style. The Umayyads issued coins in Syria, Egypt, and Iraq, so the numismatic evidence supplements the graffiti from Arabia. As with papyri, however, the evidence from coins has limitations. Coins are conservative, for no government would wish to issue a coin that might not be accepted. The writing and iconography on coins, therefore, should be taken as the



Figure 3.4 Epigraphic dinar issued under the Umayyad caliph 'Abd al-Malik from 77/697–8.

Coins issued by Muslims over the course of the seventh century show the increasing importance of religious slogans, culminating in this dinar that is entirely epigraphic and proclaims the triumph of Islam. The letters are written in a squat rectilinear script that descends only slightly from the baseline.

standard for the formal acceptance of certain conventions, but never the date of innovation of a new device or style.

The first Muslims continued the minting practices of the regions they had conquered, but in the late seventh century they developed their own distinctive coinage in which religious phrases became increasingly important.⁴⁰ One of the first to appear was *bism allah rabbi* (in the name of God, my lord). Coins minted at Bishapur in Iraq in 66/685–6 introduce *muhammad rasul allah* (Muhammad is God's prophet), a phrase that was to become the second part of the Muslim profession of faith (*shahada*). By 72/691–2 the phrase 'there is no god but God alone' (*la ilah illa allah wahda*), the first part of the profession of faith, was also included in the marginal legend. The complete profession of faith was soon accompanied by new imagery such as the standing caliph or the caliph at prayer, figures that were meant to illustrate the text and proclaim the primacy of the caliphal office. This evolution of written legends culminated in 77/697–8 with the appearance of gold coins (dinars) that are entirely epigraphic (Figure 3.4).

On these new epigraphic dinars the written word reigns supreme. The text in the obverse field proclaims the central doctrine of Islam: there is no god but God alone, without associate. The margin contains the Prophetic Mission taken from Surat al-Tawba (Koran 9:33): Muhammad is the messenger of God who sent him with guidance and the religion of truth that he might make it supreme over all other religions. The text in the reverse field rejects the idea of the Trinity, citing Surat al-Ikhlās (Koran 112): God is one, eternal; He does not beget nor is He begotten. The margin contains the date, the same legend that had been used on earlier types.

As the text on these epigraphic dinars (and on the silver coins issued shortly afterwards) is mainly Koranic, their inscriptions are fundamental in charting the history of Arabic calligraphy.⁴¹ The script shows a practiced calligraphic hand that differs from the style used in most documents, whether those issued by the chancery or those written for more quotidian purposes. The coin legends display a squat, rectilinear script like the graffito at Ta'if. Letters descend only slightly from the uniform baseline. *Alif* has a foot that bends to

the right. Isolated *ba'* opens with a short curved stroke and ends in an long open one, as in the word *duriba*. Medial *ha'/jim* is a short stroke that bisects the baseline diagonally. *Dal* and *kaf* have a sloping upper bar that ends with a short stroke. Final *qaf* descends below the line and then trails to the right, as in the word *al-haqq*, about seven o'clock in the marginal inscription on the obverse. Final *mim* has a tiny tail to the left. Final *nun* is an open descending stroke. Final *ya'* trails to the right under the word, as in *bi'l-huda* and *'ala* (at nine and five o'clock on the obverse margin, respectively) as well as *fi* (at eight o'clock on the reverse margin). Details like the right foot on *alif*, the hook on *dal*, and the slight bends in other strokes – features that are difficult to reproduce when engraving metal – show that the text was drawn up by a calligrapher.

Coins issued in Iraq in the early 70s/690s had been designed to improve the legibility of both text and image, and this entirely epigraphic type marks the culmination of readability and visual impact, in which all seventy letters fit on a surface less than 2 cm in diameter (smaller than an American quarter). The orientation of the marginal inscriptions has been reversed from that used on all earlier coins, both gold and silver. There, the baseline of the marginal inscription ran around the rim of the coin, and the tops of the letters faced inwards toward the figural imagery. In contrast, on the epigraphic coins, the marginal inscriptions face outward. This reorientation effects reading. To read the marginal text on earlier issues, one turned the coins clockwise, whereas to read the marginal legends on the epigraphic type, one turns them counterclockwise, thereby facilitating reading of the text in the fields, which runs from right to left. Visually, the new inward-facing baseline also sets off the text in the central fields, which, in turn, are laid out for maximum visual impact, with lines divided between words, and words and letters set symmetrically. On the obverse, for example, the distinctive scissor-like combination of *lam-alif* repeats at the beginning and end of line one (as well as the beginning of line three), and final *ha'* (though in independent and final forms) repeats at the end of lines two and three. Exactly the same pattern occurs on the reverse: the first line begins and ends with *allah*, and lines two and three end with the letters *lam-dal*.

Such a sophisticated design took time to plan. It was needed because these new epigraphic dinars were struck to a new weight standard: rather than continuing the old one pegged to the Byzantine solidus (approximately 4.55 grams), these dinars were struck to twenty Arabic carats (approximately 4.25 grams).⁴² The new epigraphic design thus announced the metrological innovation.⁴³

Die-cutting is a specialized art, done by a die-cutter skilled in engraving metal dies. To make these epigraphic coins, the die-cutter, who could well have been illiterate, must have taken the design that the calligrapher had drawn up with pen on another support, perhaps at a larger scale, and reproduced it in mirror reverse. We can get another view of how handwritten calligraphy was transferred to a

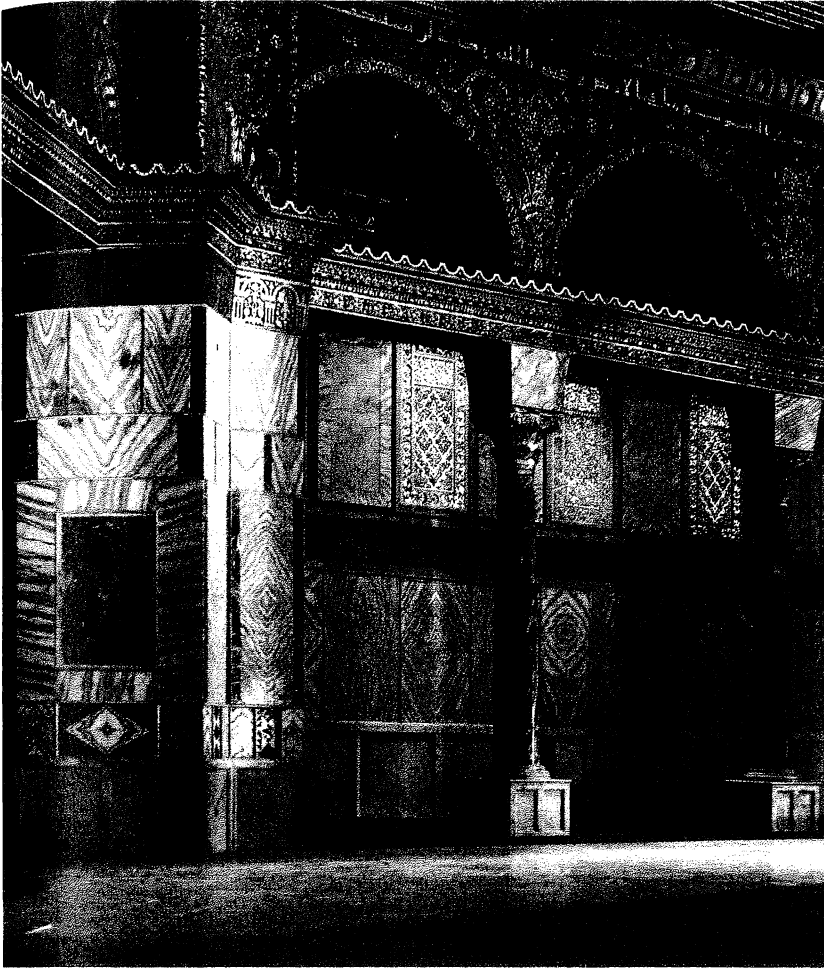


Figure 3.5 *Interior view of the Dome of the Rock in Jerusalem, ordered by the Umayyad caliph ‘Abd al-Malik in 72/692, showing the north-east part of the mosaic inscription around the inner side of the ambulatory.*

Both sides of the ambulatory in the Dome of the Rock are ringed by a 240-meter inscription band executed in blue/green and gold mosaic. The text, which includes prayers, short Koranic passages, and the date 72/692, provides the earliest dated evidence for the writing down of the Koran and shows that diacritical marks were part-and-parcel of script in early Islamic times.

different medium at this time by looking at a contemporary architectural inscription: the long (240-meter) band of gold and blue/green glass mosaic that encircles both faces of the inner façade of the Dome of the Rock in Jerusalem (Figure 3.5).⁴⁴ The inscription is preserved in its entirety, except at the end where the ‘Abbasid caliph al-Ma’mun (r. 813–33) had his name inserted in place of that of the original patron, the Umayyad caliph ‘Abd al-Malik. Al-Ma’mun retained, nevertheless, the original date of 72/691–2. The main body of the text consists of brief invocations combined with a series of passages taken from the Koran, all dealing with the same theme of challenging Christian dogma in the main pilgrimage city for Christians.

Since Oleg Grabar’s landmark study of the Dome of the Rock,⁴⁵ most scholars have accepted the importance of the inscription in explaining the meaning and function of the building, but only a few have paid attention to its importance in tracing the development of Arabic script.⁴⁶ Yet studying it in detail shows its close connection

Figure 3.6 *Limestone milestone in the name of 'Abd al-Malik measuring the distance of eight miles from Jerusalem and datable c. 692.*

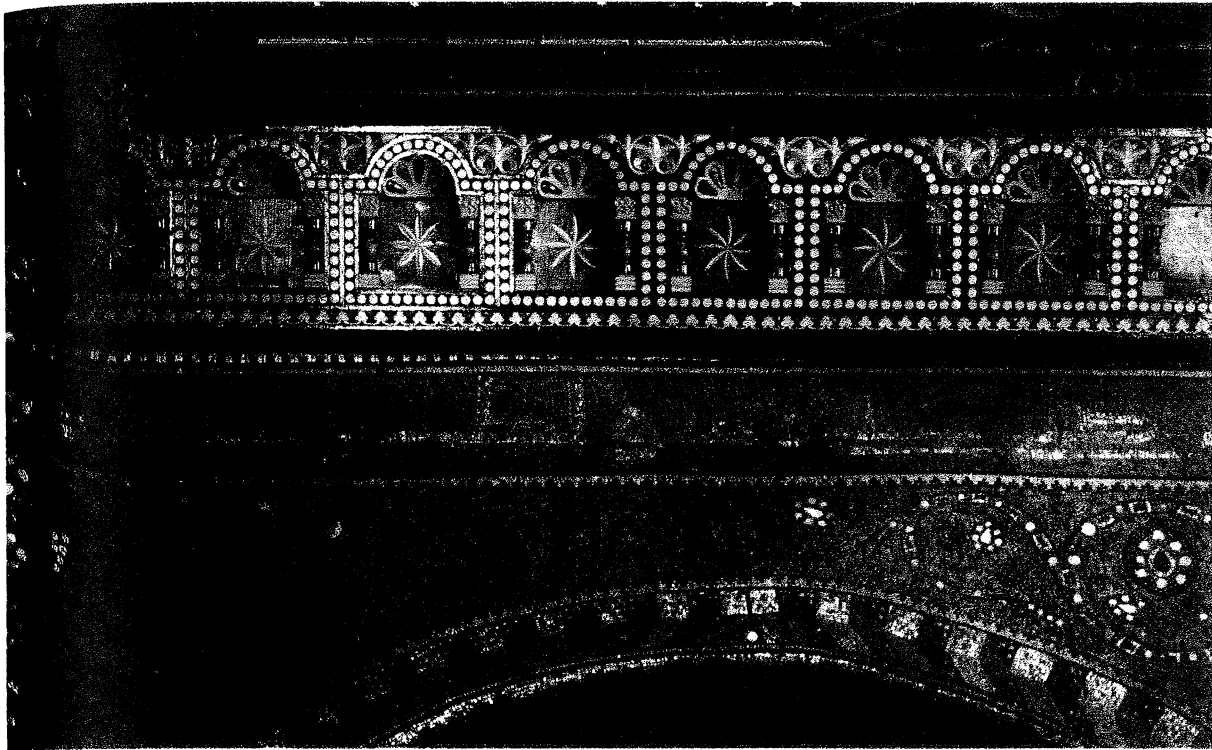
The text is written in the style typical of Umayyad inscriptions. The last line shows that diacritical marks were used at this early date, and the palmette at the bottom suggests the type of ornament that might have been used on contemporary Koran manuscripts.



to calligraphy. It confirms, for example, that diacritical marks were used from earliest times. Thin strokes accompany at least ninety-two letters, all but three in the text on the inner face, presumably because that part of the inscription was more brightly lit and hence more visible. The section of the band from the north-east side illustrated in (Figure 3.5), for example, contains the phrases *lahu ma fi'l-samawati wa'l-ardi wa-kafa billah wakilan lan yastankifa* [*'l-masih* . . .] (To Him belongs all that is in the heavens and in the earth. God suffices for a guardian. The Messiah will not disdain [to be a servant of God]) from Koran 4:171-2. Seven letters are marked by thin diacritical strokes.

Similar marks were added to five milestones erected in the name of 'Abd al-Malik. Four undated examples discovered in Palestine in the nineteenth century mark the number of miles from Damascus or Jerusalem.⁴⁷ This one (Figure 3.6) records that it is eight miles from Jerusalem.⁴⁸ A fifth milestone discovered in the 1960s describes the leveling of a difficult pass on the road from Damascus to Jerusalem in Muharram [7]3/May-June 692.⁴⁹ Its date allows us to date the group c. 692. The generic part of the text on the milestones, the first six lines with the name of the caliph, could have been prepared in advance, but when carving the last lines giving the specific distance from Jerusalem, the carver added diacritical strokes to the letters *tha'*, *nun*, and *ya'* in the word *thamaniya* (eight) in the last line to insure the correct reading.

The contemporary inscriptions on the milestones (Figure 3.6) and the Dome of the Rock (Figure 3.5) also tell us about the decoration that accompanied this early script. The bottom of the milestone is filled by a scroll that unfurls in two directions from a central



palmette. It shows that already by the end of the seventh century decorative devices were used to fill empty spaces and suggests the type of decorative rubrics that might have been used to decorate fancy manuscripts of the Koran made in early Islamic times. Similarly, the sections of text in the mosaic inscription at the Dome of the Rock are divided by simple ornaments in the shape of rosettes or stars inscribed in squares. These ornaments call to mind the markers used to divide groups of verses in later manuscripts of the Koran and suggest that verse markers were already used in manuscripts penned in early Islamic times.

The mosaic inscription at the Dome of the Rock also gives clear evidence about the archaic fashion of vocalization and pointing. The script used is one of the so-called *scriptiones defectivae*, in which certain vowels, such as the long *alif* in *salam*, are omitted. In the Dome of the Rock inscription, *alif* is regularly omitted in hortative phrases such as *ya ahl* or *ya ayuha*, and words such as *wahada* and *al-samawat* are written in the *scriptio defectiva* form without the long *alif*, as in Figure 3.5. In addition, the letter *qaf* is repeatedly pointed in the archaic style. Now conventionally written with two dots above the letters, *qaf* is pointed here with one stroke below the letter to differentiate it from *fa*, which is pointed with one stroke above the letter.

Looking at a detail of the mosaic inscription on the Dome of the Rock (Figure 3.7) shows the skilled hand of a calligrapher in designing

Figure 3.7 *Detail of the mosaic inscription on the inner side of the ambulatory in the Dome of the Rock, Jerusalem, 72/692.*

Close examination of the mosaic inscription shows many characteristics of a calligraphic style, such as tapered, rounded, and hairline strokes, and prove that the inscription was designed by a master calligrapher for execution by a professional mosaicist.

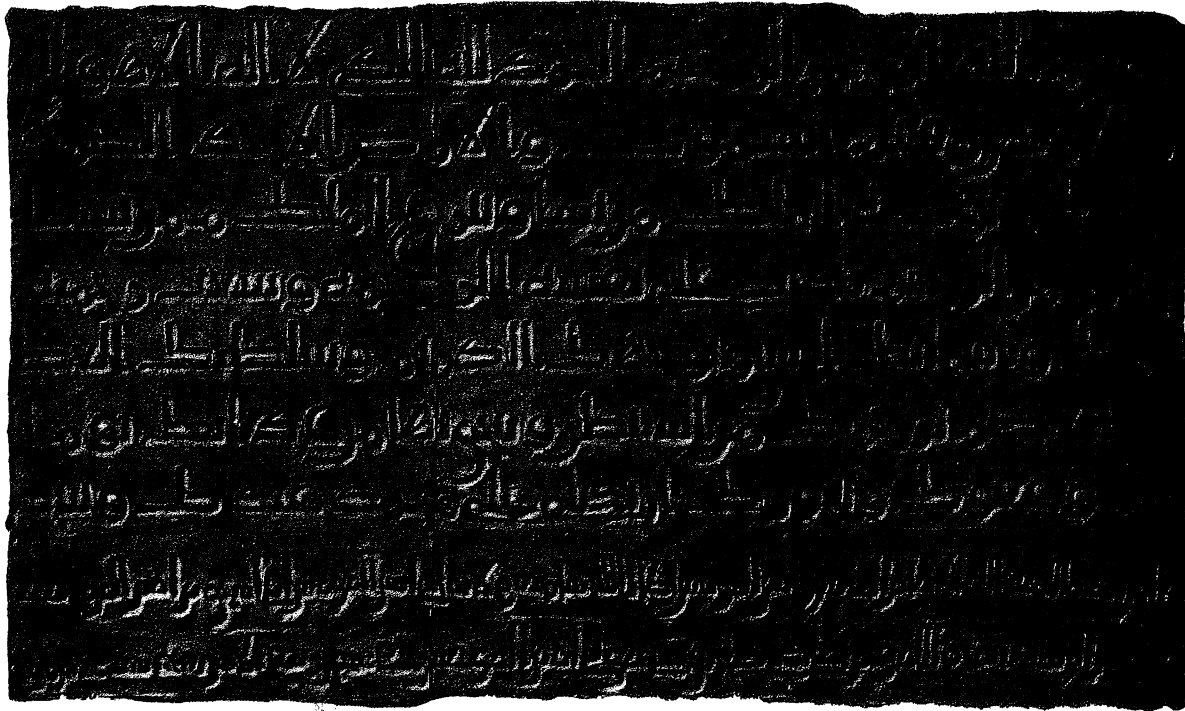


Figure 3.8 Van Berchem's squeeze (digitally enhanced) of the right half of the hammered copper plaque that once adorned the lintel over the inner door of the east entrance to the Dome of the Rock.

The relief letters show the same style as those in the mosaic band in the interior of the building, but with more rounded and nested strokes, typically of the hand of a calligrapher.

the letter shapes. The ends of some letters taper to a point, as with the beginning of *alif* and 'ayn or the end of final *ya*, which always trails to the right. Initial *ba* is slightly curved rather than rigidly vertical. Some tails are rounded, such as final *nun*, *sad*, *ha*, and *ya*. *Dal* has a hairline upper stroke. Toothed letters vary in height. Many letters are elongated, notably the body of *kaf*. The strokes of the letters also vary in width. Some are six tesserae wide; others only five. Features like tapering, curved, and hairline strokes are typical of the pen, not of mosaic, which is a rectilinear and blocky technique.

Many of these calligraphic traits can also be found on the hammered copper plaques (Figure 3.8) that once adorned the lintels over the inner doors of the east and north entrances to the Dome of the Rock.⁵⁰ Like the mosaic inscription, these ones were adjusted by the 'Abbasid caliph al-Ma'mun, who had the two crowded lines added at the bottom; only the first seven lines are original. They show the same letter shapes and elongation of letters found in the mosaic inscriptions on the building. *Mim*, for example, ends with a horizontal, rather than a vertical tail. Initial *jim* bisects the baseline. If anything, the ones on the copper plaques are closer to the hand of the calligrapher, for not only are the bodies and ends of some letters rounded, but occasionally they are nested inside one another, as with the tails of *sad* and *waw* in *al-ardi wa* at the beginning of the second line. The following word *al-samawati*, written without long *alif*, uses the same *scriptio defectiva* found in the mosaic inscription.

To clarify the role of the calligrapher at the Dome of the Rock, we need to examine the way mosaics are executed. Mosaics were a standard technique of decoration in Byzantine times, and scholars have established the successive steps used in that tradition.⁵¹ Since the mosaics at the Dome of the Rock are done in Byzantine style, most likely by Byzantine-trained craftsmen, we can safely assume that a similar method was used there. First, the interior of a building was coated with a thick layer of plaster that covered up the inconsistencies of the wall surface. This was covered by a second finer layer of plaster, on which the artist sketched out the scheme of decoration. This type of sketch is often called a *sinopia*, because it was executed in the red earth pigment that was traditionally sold in Sinop, a town on the southern coast of the Black Sea. A final, thin layer of plaster served as the setting bed for the mosaic tesserae. Because the tesserae had to be pressed into the plaster before it hardened, the third coat was laid in daily sections, often termed *giornati*. Although the size of this area varied in different climates and surfaces of a building, the typical *giornata* established for the eleventh-century cathedral of St Sophia in Kiev was approximately two square meters. On this third layer the artist rapidly painted the design he intended to cover with mosaic that day. Should any plaster have been left unused at the end of the day, he probably cut it away before starting afresh the next day.

Marguerite van Berchem's examination of the mosaics at the Dome of the Rock confirmed the presence of a *sinopia* on the soft layer of plaster there.⁵² The artist used red under the gold tesserae, the ones used for the inscription, and dark grey underneath the blue/green ground. The strokes for the letters, measure some 5 cm, the same height as those in a protocol (Figure 2.2), and were probably drawn using a similar brush, in the same way that Roman inscriptions, including the serifs, were first written with a brush and then V-cut in stone.⁵³

Materials and technique prove that the inscription was the most important part of the band ringing the arcade. Close-up photographs of the Dome of the Rock show that the mosaicist first set the cubes that formed the outlines of the letters, then filled the interiors, and finally surrounded the letters with the blue/green ground.⁵⁴ He set the letters in gold tesserae, the most expensive part of an already expensive medium.⁵⁵ He also set the gold tesserae using a more time-consuming (and hence costly) technique: the gold (and elsewhere the silver) tesserae are laboriously set at a 30° angle to reflect the light.

The person who drew the inscription on the plaster at the Dome of the Rock was therefore a highly talented and specialized artist. We can speculate about his identity. The mosaicist himself could not have designed the inscription, for he was probably a Greek-speaking Christian who had trained on nearby monuments such as the Church of the Nativity in Bethlehem.⁵⁶ Nasser Rabbat suggested that Raja'

ibn Haywa al-Kindi, one of the two men charged with supervising work at the Dome of the Rock, may have drawn up the text.⁵⁷ A theologian, transmitter of hadith (*muhaddith*), and *éminence grise* of the period,⁵⁸ he also served as administrator in charge of accounts. He may have stipulated the content of the inscription, but there is no evidence that he was a copyist.

Rather, the evidence of the mosaic inscription itself shows that it was designed by a skilled calligrapher. This was a common practice in early Islamic times. According to the tenth-century chronicler Ibn al-Nadim, the Medinese calligrapher Khalid ibn Abi'l-Hayyaj transcribed copies of the Koran, poems, and reports for the Umayyad caliphs al-Walid (r. 705–15) and 'Umar II ibn 'Abd al-'Aziz (r. 717–20) and also designed the gold mosaic inscriptions for the Mosque of Medina, restored under al-Walid c. 93/710.⁵⁹ Since there is no evidence of a group of copyists working in Palestine at this time, Whelan suggested that he or one of his contemporaries working in Medina designed the inscriptions for the Dome of the Rock.⁶⁰ The mosaic inscription on the Dome of the Rock would then represent the original *mushaf* script devised at Medina. Such a calligrapher would have been brought to the site, for the designs must have been sketched *in situ* as they exactly fit the space allotted to them.⁶¹

The writing in letters on papyri and leather, the graffiti on walls and pot sherds, the legends on coins, and the inscriptions on architecture, then, show how a calligraphic script developed during the seventh century and beginning of the eighth. At the same time professional copyists undoubtedly produced fine manuscripts of the Koran, but no dated examples survive. In the following chapter we shall examine different methodologies to try to group the many fragments from these early manuscripts and trace how calligraphic styles developed in the early centuries of Islam.

Notes

1. Étienne Combe, Jean Sauvaget, and Gaston Wiet, *Répertoire chronologique d'épigraphie arabe* (Cairo: Institut français d'archéologie orientale, 1931), no. 1; James A. Bellamy, 'A New Reading of the Namārah Inscription,' *Journal of the American Oriental Society* 105, no. 1 (1985): 31–48. The stone is now in the Louvre Museum in Paris (MAO 4083).
2. One found at 'En Avdat in the Negev dates between 88–9 and 125–6 CE. Another found at Mada'in Salih, the Nabatean outpost in the Hijaz, dates to 267/8 and shows a linguistic admixture of Arabic; see A. Negev, 'Obodas the God,' *Israel Exploration Journal* 36 (1986): 56–60, cited in Beatrice Gruendler's article 'Arabic Script' in *Encyclopedia of the Qur'ān*, ed. Jane Dammen McAuliffe (Leiden, 2001), 1:135–44.
3. Nabia Abbott, *The Rise of the North Arabic Script and its Kur'ānic Development, with a Full Description of the Kur'ān Manuscripts in the Oriental Institute*, University of Chicago, Oriental Institute Publications (Chicago, 1939); Beatrice Gruendler, *The Development of the Arabic Scripts: From the Nabatean Era to the First Islamic Century*

- According to *Dated Texts*, Harvard Semitic Series (Atlanta, 1993); Thomas Bauer, 'Arabic Writing,' in *The World's Writing Systems*, ed. Peter T. Daniels and William Bright (New York, 1996), 559–64; Beatrice Gruendler, 'Arabic Script,' in *EQ*, 1:135–44.
4. Adolf Grohmann, *Arabische Paläographie II: Das Schriftwesen und die Lapidarschrift*, Österreichische Akademie der Wissenschaften Phil.-Hist. Klasse. Denkschriften. Bd. 94/2 (Vienna, 1971), 3–33. John F. Healey, 'Nabataean to Arabic: Calligraphy and Script Development among the Pre-Islamic Arabs,' *Manuscripts of the Middle East* 5 (1990–1): 41–52, has recently made the same argument that cursive forms close to Arabic script already existed in Nabataean as written in the first and second centuries CE.
 5. Combe, Sauvaget, and Wiet, *RCEA*, 2–4; Grohmann, *Arabische Paläographie II*, 14–15; Gruendler, *Development of the Arabic Scripts*, 13–14.
 6. J. Starcky, 'Pétra et la Nabatène,' in *Dictionnaire de la Bible. Supplément* (Paris, 1966), 7:886–1017.
 7. Abu'l-'Abbās Ahmad ibn Jābir al-Balādhurī, *The Origins of the Islamic State* [Kitāb Futūḥ al-Buldān], trans. Philip Khmri Hitti (New York, 1968), 2:270.
 8. E.g., Janine Sourdel-Thomine in her article 'Khaṭṭ' in *EI*/2 and 'Les origines de l'écriture arabe à propos d'une hypothèse récente,' *Revue des Études Islamiques* 34 (1966): 151–7, and Solange Ory, 'Calligraphy' in *EQ*, 1:278–6.
 9. A good example is Giovanni Garbini's chart, reproduced in Peter T. Daniels and William Bright, *The World's Writing Systems* (New York: Oxford University Press, 1996), table 5.5, showing the various scripts that are derived from Aramaic script, such as square Hebrew, Palmyrene, Nabatean, and Ancient Arabic. This is the methodology used by Gruendler, *Development of the Arabic Scripts*, the most recent study of the origins of Arabic script.
 10. F. Briquel-Chatonnet, 'De l'araméen à l'arabe: quelques réflexions sur la genèse de l'écriture arabe,' in *Scribes et manuscrits du Moyen-Orient*, ed. François Déroche and Francis Richard (Paris, 1997), 135–50.
 11. John F. Healey, *The Early Alphabet* (London, 1990).
 12. The first dated example of a Syriac manuscript in *serto*, BL Add. 14548, is dated 790 CE.
 13. Gruendler, for example, in her most recent discussion of the formation of pre-Islamic Arabic script (*EQ*, 1:138), sticks to her original position in that 'the individual Arabic graphemes descend through Nabatean from the west Semitic alphabet,' but accepts that the general proportions 'suggest Syriac calligraphic influence.' Alan Jones, 'The Word Made Visible: Arabic Script and the Committing of the Qur'ān to Writing,' in *Texts, Documents and Artifacts: Islamic Studies in Honour of D. S. Richards*, ed. Chase F. Robinson (Leiden, 2003), 1, suggests that other influences from south Arabia must be involved to explain such features as the differentiation in Arabic between *dal* and *ra*, a difference lacking in Nabatean, Syriac, and Palmyrene.
 14. F. Krenkow, 'The Use of Writing for the Preservation of Ancient Arabic Poetry,' in *Ajabnama: Studies in Honour of Edward Granville Browne* (Cambridge, 1922); Jones, 'The Word Made Visible.' For an example of such a metaphor by Salama ibn Jandal, a poet who flourished in the second half of the sixth century, see Chapter 5 and Figure 5.10.
 15. The Koran uses the term *kitab* 261 times, not only to describe itself but also to refer to earlier scriptures. See the thoughtful article by David

- Madigan, 'Book' in *EQ*, 1:242–51, especially the sub-section 'The Qur'ān as *kitāb*' as well as his longer and denser exegesis on the subject, *The Qur'ān's Self-Image: Writing and Authority in Islam's Scripture* (Princeton, 2001). The first inscription mentioning the Koran as a separate entity occurs only in 'Abbasid times in the eighth century; see Robert G. Hoyland, 'The Content and Context of Early Arabic Inscriptions,' *Jerusalem Studies in Arabic and Islam* 21 (1997): 86. The celestial pen was a powerful image. Luce López-Baralt, 'The Supreme Pen (Al-Qalam Al-A'la) of Cide Hamete Benengeli in *Don Quixote*,' *Journal of Medieval and Early Modern Studies* 30, no. 3 (Fall 2000): 505–18, has recently argued that the celestial pen mentioned in Koran 68:1 inspired the closing scene of Cervantes' masterpiece *Don Quixote*, in which the fictional author addresses his dry pen suspended in the air from a kitchen hook, a pen whose desiny has therefore been sealed by God.
16. Alan Jones, 'Orality and Writing in Arabia,' in *EQ*: 3:587–93. The question of whether the Prophet himself knew how to write is a different one. The Koran (*Surat al-a'raf*, 'The Heights,' 7:157–8) speaks of *al-nabi al-ummi*. Traditionalists take this phrase to mean the 'unlettered Prophet' and use it as evidence that he did not know how to read or write. Western Orientalists, however, interpret this phrase as meaning the Prophet of the common folk.
 17. She used this metaphor in her article 'The Phantom of *Hijāzī* Script: A Note on Paleographic Method' (unpublished), submitted to *Manuscripts of the Middle East* in 1997, but unfortunately never published. Before her death, she shared a copy with me, and with the permission of her husband, I share it here.
 18. The most recent discussions of these papyri are Geoffrey Khan, *Arabic Papyri: Selected Material from the Khalili Collection* (London, 1992); Geoffrey Khan, *Bills, Letters and Deeds: Arabic Papyri of the 7th to 11th Centuries*, ed. Julian Raby, The Nasser D. Khalili Collection of Islamic Art (London, 1993); Gruendler, *Development of the Arabic Scripts*, 22–8, which summarize the work of earlier scholars such as Joseph von Karabacek, *Führer durch die Ausstellung Papyrus Erzherzog Rainer* (Vienna, 1892) and Adolf Grohmann, *From the World of Arabic Papyri* (Cairo, 1952); Grohmann, *Arabische Paläographie II*. Gruendler's work is particularly valuable as she not only lists twenty-three dated examples of cursive script on papyri, leather, and stone from the first century of Islam, but also includes drawings of them and charts of the individual letters used in these texts.
 19. Grohmann, *Arabic Papyri*, 2. As Khan observes (*Bills, Letters and Deeds*, n. 2, p. 21), this figure refers only to moderately well-preserved documents. The total number of extant papyrus fragments with Arabic writing is far higher.
 20. Working from a list prepared by Grohmann ('The Problem of Dating Early Qur'ans,' *Der Islam* 33 [1958]: 213–31), Gruendler (*Development of the Arabic Scripts*, 21–8) assembled a list of twenty-three specimens, including two graffiti on stone from Qasr Kharana dated 92/711 (her P17), a letter on leather from Mt Mugh (her P22; see Figure 3.2), and an undated palimpsest (her P23). Gruendler assigned a single number to groups of dated papyri found at the same site and dealing with the same subject. For example, she assigned the number P4 to the group of thirteen papyri, mostly entagia (announcements of taxes owed by a local community) dating to the period 52–70 (672–89), that was discovered at 'Awja' al-Hafir (Nessana) near Be'ersheva by the H. Dunscombe Colt

- expedition of 1936–7. C. J. Kraemer, *Excavations at Nessana III* (Princeton, 1958) had reproduced only one of them, a requisition of taxes from the governor dated 54/674, drawn by Gruendler, *Development of the Arabic Scripts* as P4, p. 158. Her P14 comprised the Greek-Arabic entagia found at Aphrodito written in the name of the Umayyad governor of Egypt, Qurra ibn Sharik (of which she listed eight), and her P15 comprised letters from Qurra to Basil, the Coptic patriarch (of which she listed fourteen).
21. Gruendler, *Development of the Arabic Scripts*, P1; Alan Jones, 'The Dotting of a Script and the Dating of an Era: The Strange Neglect of PERF 558,' *Islamic Culture* 72, no. 4 (October 1998): 95–103.
 22. Six letters (*ha/jim, kha', dhal, za', shin, and nun*) are dotted, though they also occur without dots.
 23. St Petersburg, Academy of Sciences, A-240; Yuri A. Petrosyan, et al., *Pages of Perfection: Islamic Paintings and Calligraphy from the Russian Academy of Sciences, St Petersburg* (Lugano, 1995), no. 5.
 24. The documents are now scattered in collections in Heidelberg, St Petersburg, Chicago, Cairo, and Paris. They form entry P14 in Gruendler, *Development of the Arabic Scripts*.
 25. Grohmann, *Arabische Paläographie II*, 7.
 26. Franz Rosenthal, 'Abū Haiyān al-Tawhīdī on Penmanship,' *Ars Islamica* 13–4 (1948): 1–30.
 27. Yūsuf Rāḡib, 'L'écriture des papyrus arabes aux premiers siècles de l'Islam,' in *Les premières écritures islamiques* (Aix-en-Provence, 1990), 14–29.
 28. The earliest dated example of a literary text on papyrus is dated 229/843 (see R. G. Khoury, 'L'importance d'Ibn Lahī'a et son papyrus conservé à Heidelberg,' *Arabica* 22 [1975]: 11–2, cited in Hoyland, 'Early Arabic Inscriptions,' no. 3). Some fragments published by Adolf Grohmann, *Arabic Papyri from Khirbet el-Mird* (Louvain, 1963), nos. 71–3 date from the mid- to late eighth century.
 29. Some modern authors have given this script a special name. In his catalogue of the protocols in the Rainer collection, Grohmann called it *jalil* (cited in Gruendler, *Development of the Arabic Scripts*, no. 198) and connected it to the script used for large copies of the Koran, but this comparison does not hold. Others have called it *tumar*, the Arabic word derived from the Greek *tomarion* (see Chapter 2).
 30. Gruendler, *Development of the Arabic Scripts*, 134.
 31. Now in the Damascus Museum, the plaque was included in *The Arts of Islam*, exhibition catalogue, Hayward Gallery (London, 1976), no. 470.
 32. Khan, *Bills, Letters and Deeds*; Khan, *Arabic Papyri*.
 33. This is the principle sometimes known in Arabic as *mashq* or *madd*, from the verbs *mashaqa* and *madda*, to extend or elongate, or in Persian as *kashida*, from the verb *kashidan*, to pull or stretch. (The latter form is commonly used in typography and computer parlance today.)
 34. John Wansbrough, *Quranic Studies: Sources and Methods of Scriptural Interpretation* (Oxford, 1977). Oleg Grabar, *The Mediation of Ornament*, A. W. Mellon Lectures in the Fine Arts, 1989 (Princeton, 1992), esp. Chapter 2, pushed the argument one step further, contending that calligraphy, or fine writing as distinct from ordinary writing, developed in the Islamic lands only in the tenth century.
 35. Estelle Whelan, 'Forgotten Witness: Evidence for the Early Codification of the Qur'an,' *Journal of the American Oriental Society* 118, no. 1 (1997): 1–14.

36. Writing in the tenth century, our earliest source, Ibn al-Nadim, *The Fihrist of al-Nadim: A Tenth-Century Survey of Muslim Culture*, ed. and trans. Bayard Dodge (New York and London, 1970), 11, reports that Khalid ibn Abu'l-Hayyaj was the first to transcribe copies of the Koran during the reign of al-Walid, thereby setting the start of the tradition at the beginning of the eighth century.
37. See Chapter 1 and note 8 for references about the standardization of Chinese script.
38. Hoyland, 'Early Arabic Inscriptions,' 77–8, estimated that there were thousands of such graffiti etched on rocks throughout the central Islamic lands from the 30s/650s onwards. See also Saad A. al-Rashid, *Darb Zubaydah: The Pilgrimage Road from Kufa to Mecca* (Riyadh, 1980) and Robert G. Hoyland, *Arabia and the Arabs: From the Bronze Age to the Coming of Islam* (London and New York, 2001).
39. George C. Miles, 'Early Islamic Inscriptions Near Ta'if in the Hijaz,' *Journal of Near Eastern Studies* 7 (1948): 236–42; Gruendler, *Development of the Arabic Scripts*, E4. The site includes other graffiti, including one in a similar style with Koran 33:56 signed by 'Abdallah ibn Ta'min?, whose picture is now available on the web at <http://www.islamic-awareness.org/History/Islam/Inscriptions/muwinsc2.html>. I thank Jeff Spurr for this reference. This photograph was taken by Karl Twitchell, an American geologist who worked in the Yemen from 1926, and then from 1931 undertook a systematic geological survey of Saudi Arabia. His extensive photographic record includes Yemen and Arabia plus the work of Charles Crane and continues up to the early 1950s. His photographs are now stored at the Harvard Semitic Museum Photographic Archives.
40. There is a vast bibliography on early Islamic coinage. The classic works are J. Walker's catalogues of the coins in the British Museum, *A Catalogue of the Arab-Sasanian Coins*, Catalogue of the Muhammadan Coins in the British Museum (London, 1941) and *Arab-Byzantine and Post-Reform Umayyad Coins*, Catalogue of the Muhammadan Coins in the British Museum (London, 1956). A more recent monograph based on the collection in the Ashmolean Museum is S. Album and T. Goodwin, *Early Islamic Coinage*, Sylloge of Islamic Coins in the Ashmolean (Oxford, 2001). Michael L. Bates, 'History, Geography and Numismatics in the First Century of Islamic Coinage,' *Revue Suisse de Numismatique* 65 (1986): 231–62, revamped the coinage issued under 'Abd al-Malik. See also Sheila S. Blair, 'What is the Date of the Dome of the Rock?' in *Bayt al-Maqdis: 'Abd al-Malik's Jerusalem, Part One*, ed. Julian Raby and Jeremy Johns, Oxford Studies in Islamic Art 9 (Oxford, 1992), 59–88, and the color plates of the dinars in Jonathan Bloom and Sheila Blair, *Islamic Arts, Art and Ideas* (London, 1997), 66–8. W. Luke Treadwell, 'The 'Orans' Drachms of Bishr Ibn Marwān and the Figural Coinage of the Early Marwanids,' in *Bayt al-Maqdis: 'Abd al-Malik's Jerusalem, Part Two*, ed. Jeremy Johns, Oxford Studies in Islamic Art 9 (Oxford, 1999), 223–71, and "'Mihrab and 'Anaza" or "Sacrum and Spear"? A Reconsideration of an Early Marwanid Silver Drachm' (forthcoming) showed that these experiments in visual and epigraphic iconography started already under the Umayyad governor of Iraq, Bishr ibn Marwan. Many of the silver coins (drachms) issued in the east are illustrated in Malek Iraj Mochiri, *Arab-Sasanian Civil War Coinage: Manichaeans, Yazidiya and Other Khawārif* (Leiden, 1986).
41. The usefulness of coin legends is comprised by their brevity, as the short texts do not show all possible variations of letter shapes and combinations.

42. Philip Grierson, 'The Monetary Reforms of 'Abd al-Malik,' *Journal of the Economic and Social History of the Orient* 3 (1960): 241-64.
43. The skill of this design is also clear when one compares the legends on this coin with others issued in the following years, many available in the on-line database of the American Numismatic Society, available at <http://www.amnumsoc.org/search/>. The script on the later coins is not nearly as handsome. The spacing is irregular and the letter shapes are wiggly. They seem to be copies by less expert hands. A study of the paleography on these coins might repay further study, as is the case with Luke Treadwell's careful studies of their figural iconography; Treadwell, 'Orans Drachms.'; Treadwell, "'Mihrab and 'Anaza" or "Sacrum and Spear"'.
44. The classic publication of the building is K. A. C. Creswell, *Early Muslim Architecture, Vol. I*, 2nd edn (Oxford, 1969), 42-94 and 151-228. The inscription was first read by Max van Berchem, *Matériaux pour un Corpus Inscriptionum Arabicarum II: Syrie du Sud: Jerusalem*, Mémoires de l'Institut Français Archéologique du Caire (Cairo, 1920-7), no. 215 and then re-examined by Christel Kessler, "'Abd al-Malik's Inscription in the Dome of the Rock: A Reconsideration,' *Journal of the Royal Asiatic Society* 3 (1970): 2-14.
45. Oleg Grabar, 'The Umayyad Dome of the Rock in Jerusalem,' *Ars Orientalis* 3 (1959): 33-62.
46. In addition to Kessler, 'Abd al-Malik's Inscription in the Dome of the Rock', see Whelan, 'Forgotten Witness'.
47. Combe, Sauvaget, and Wiet, *RCEA*, nos. 13-17.
48. Paris, Louvre, MAO4087; *L'Islam dans les Collections Nationales*, exhibition catalogue, Grand Palais (Paris, 1977), no. 71.
49. M. Sharon, 'An Arabic Inscription from the Time of the Caliph 'Abd al-Malik,' *Bulletin of the School of Oriental and African Studies* 29 (1966): 369-72; Bloom and Blair, *Islamic Arts*, fig. 29.
50. Berchem, *MCIA Jerusalem*, nos. 216-17.
51. Convenient introduction in John Lowden, *Early Christian and Byzantine Art* (London, 1997), 256-9.
52. Creswell, *EMA I/1*, 151-228.
53. Edward M. Catich, *Letters Redrawn from the Trajan Inscription* (Davenport, IA, 1961); Edward M. Catich, *The Origin of the Serif: Brush Writing of Roman Letters* (Davenport, IA, 1991 [1968]).
54. See the superb photographs in Saïd Nuseibeh, *The Dome of the Rock* (New York: Rizzoli, 1996).
55. Later documents from Europe show that in the fourteenth century mosaic revetment cost some four times as much as fresco.
56. André Grabar, *L'Iconoclisme byzantin* (Paris, 1957), 63, suggested that the mosaics in the Church of the Nativity in Bethlehem were installed not long after the sixth ecumenical council in Constantinople in 680-1 CE and that the same team would then have turned to the Dome of the Rock in the 690s and the Great Mosque of Damascus in the early 700s. See also Blair, 'What is the Date of the Dome of the Rock?' 69.
57. Nasser Rabbat, 'The Dome of the Rock Revisited: Some Remarks on al-Wasiti's Accounts,' *Muqarnas* 10 (1993): 67-75.
58. C. E. Bosworth, 'Rajā' Ibn Ḥaywa al-Kindi and the Umayyad Caliphs,' *Islamic Quarterly* 16 (1972): 36-80.
59. Al-Nadim, *Fihrist*, 11. Ibn al-Nadim also describes Khalid as 'the man who at the beginning [of Islam] first wrote copies of the Qur'an, being honored for the beauty of his penmanship.'
60. Whelan, 'Forgotten Witness.'

61. If we take the estimate of 2 square meters per day for the typical *gior-nato* used at Kiev, then it would have taken some thirty days to execute the mosaics in a long band around the Dome of the Rock, based on an estimation of 240 meters in length and some 25 cm high.

Early Manuscripts of the Koran

THE MOST FAMILIAR calligraphic specimens that survive from early Islamic times comprise fragments from Koran manuscripts copied on parchment in various rectilinear scripts.¹ These codices are known in Arabic as *masahif* (sing. *mushaf*), from *sahifa* (pl. *suhuf*), leaf or page in a book. Nearly all of these codices have been broken into fragments or individual leaves, which are now scattered in museums and private collections around the world.² Already prized in medieval times, many of these early manuscripts and fragments were preserved in mosques, as in the spectacular cache discovered recently in the Great Mosque at San'a in the Yemen. In 1971 heavy rains caused the west wall to collapse and when it was rebuilt the following year, the space between the ceiling and the roof was found to contain a treasure of written documents, including some forty thousand fragments from more than a thousand Koran manuscripts, seven hundred on parchment in addition to another three hundred and fifty to four hundred on paper.³ They were probably saved because they contained God's word, much as orthodox Jews preserve fragmentary documents lest they bear God's name.⁴

In addition to the Yemeni hoard, François Déroche has identified leaves from some three hundred parchment manuscripts.⁵ Many are now in the Museum of Turkish and Islamic Art, which has probably the largest collection of early Islamic manuscripts and fragments, amounting to over two hundred thousand folios. Many of these had been stored in the courtyard of the Great Mosque of Damascus in Syria until the disastrous fire there at the end of the nineteenth century. For safekeeping, the manuscripts were then removed to Istanbul, capital of the Ottomans who ruled Syria at the time. The finest went to the Topkapı Library, the rest to the Evkaf Museum (literally the Museum of Pious Endowments), later renamed the Museum of Turkish and Islamic Art. Another large collection of fragments preserved at the Mosque of 'Amr in Fustat is now in the National Library (Dar al-Kutub) in Cairo.⁶ Déroche has worked extensively on these early parchment manuscripts of the Koran, and much of what we know about methods of production is the result of his prodigious research.⁷

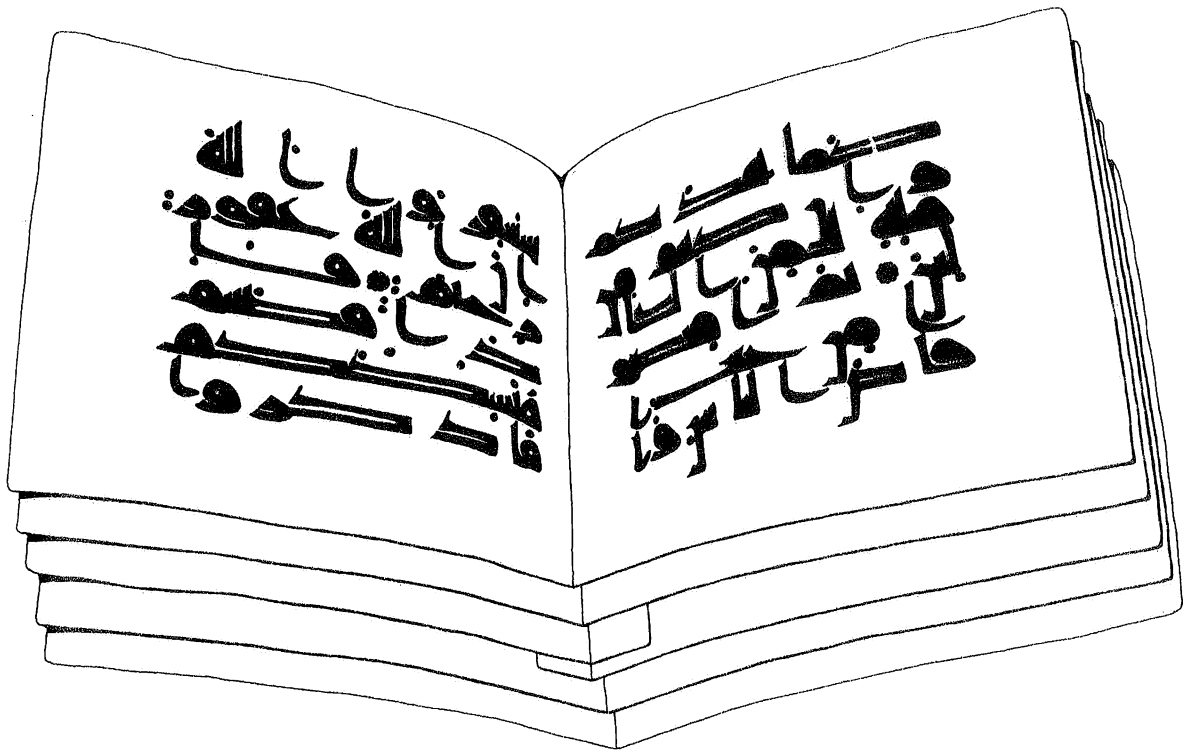
Shrines were also repositories for fine Koran manuscripts. Manuscripts from the Dome of the Rock in Jerusalem, for example,

have been collected in the city's Islamic Museum, which now holds 266 Koran manuscripts.⁸ Shi'ite shrines are another rich source. The Safavid dynastic shrine at Ardabil in Iran possessed at least four hundred fragments, including some fine folios from early manuscripts that have passed to the National Museum in Tehran.⁹ The shrine at Mashhad for the eighth Imam 'Ali ibn Musa al-Rida has a similar collection,¹⁰ and its oldest and most famous Koran manuscript (Figure 1.5) shows how these early fragments acquired particular prestige at certain times.¹¹ The last page of this fragment containing four sections (*juz*' 12–15; Suras 11–18) bears the 'signature' of the Prophet's son-in-law and fourth imam 'Ali ibn Abi Talib. Although added at a later date, the signature was considered authentic in the Safavid period, for the first page of the manuscript bears an endowment notice drawn up in Jumada I 1008/November–December 1599 by Shaykh Baha'i Amili, the leading theologian of the day, attesting to its genuineness. The fragment was part of a substantial gift to the shrine by Shah 'Abbas to bolster his legitimacy, an act that culminated in his famous pilgrimage on foot from Isfahan to Mashhad in the fall of 1010/1601.¹² The Safavids, who claimed legitimacy as descendants of the Prophet through his son-in-law 'Ali and who made Twelver Shi'ism the state religion of Iran, saw these specimens signed by the early imams as bolstering their line. In the same way, copies of the Koran said to have been penned by the Umayyad caliph 'Uthman and even stained with his blood were often deemed relics, cultivated as sites of pilgrimage and visitation, and invoked for aid in times of crisis.¹³

The first section of this chapter summarizes how these parchment Koran manuscripts were made in early Islamic times. The fragments represent a vast corpus of material, none of it signed or dated in the original hand, and the second section discusses different methodologies used to localize and date individual manuscripts and groups. So far, none of these methodologies has allowed us to fix the date or provenance of many manuscripts, and the third section deals with further steps that can help us to do so.

Physical characteristics

Virtually all of these early Koran manuscripts were copied on parchment sheets, typically bifolios, that were assembled into codices.¹⁴ The manuscripts come in two basic formats: vertical ones that are tall and narrow, and oblong ones that are shorter and wider. In modern computer parlance, we might call these portrait and landscape formats. We do not know why these two formats were used. They could represent different centers or schools of manuscript production or different periods of production or both. One likely reason for choosing these two formats is practical: it is this shape (which is really the same but rotated 90°) that makes the most of the animal skin. Déroche established that in many early Koran codices copied on



parchment in angular script, the sum of the folio's height plus its width measures between 30 and 35 cm.¹⁵

The makers of books in the Muslim lands turned this parchment into a codex differently than did their contemporaries in the Christian West, whose techniques have given rise to most of our vocabulary about manuscript production. To make a parchment codex, craftsmen in the Christian West folded the material once (in folio), twice (in quarto), three times (in octavo), or more, thus producing one, two, four, or more sets of bifolios (two, four, eight, or more pages) in a quire, or gathering.¹⁶ As a result of this folding, in an open quire hair sides face hair sides and flesh sides face flesh sides, in the arrangement known as Gregory's rule.

Parchment codices made in the Islamic lands, by contrast, have quires with an uneven number of bifolios, typically five.¹⁷ The uneven number means that the bifolios could not have been obtained by folding a dressed hide. Rather, the sheets of parchment were stacked with flesh sides uppermost and sewn along the crease into a quire (Figure 4.1).¹⁸ As a result, the hair sides are visible on the outside of the quire, and two hair sides are contiguous between quires. When the quire is open, two flesh sides are visible in the center. All the other joins or open spreads within a quire consist of one hair side facing one flesh side (the opposite of Gregory's rule). This practical arrangement had a significant effect on the writing, for

Figure 4.1 Drawing showing the arrangement of a quinion, or quire with five folios, used in parchment Koran manuscripts made in the first centuries of Islam.

To take advantage of all the dressed hide available, craftsmen often pieced together bifolios from off-cuts, as in the middle of this quire. The bifolios were then piled in a stack with the flesh sides on the top. When open, any double spread except the uppermost in a quire would have one hair side facing one flesh side.

it means that most double-page spreads, when seen open, are unbalanced, as the hair side is smoother and takes the ink more uniformly than the flesh side (Figure 5.4).¹⁹

It was difficult (and expensive) to turn a single skin into large bifolios, and so parchment workers devised methods to maximize the skin available. They often patched together bifolios from off-cuts by overlapping isolated sheets near the gutter of the quire and treating the patched bifolios as if they were true ones. The typical quinion, or quire of five folios, thus combines true bifolios with bifolios of sheets patched together and inserted symmetrically between them. In this drawing of a hypothetical quinion (Figure 4.1), for example, the middle folio is pieced together of two isolated sheets.

The prepared quires of bifolios were then ready for the calligrapher. In later times a system of lines was often added to the bifolios with a dry point to show the calligrapher where to write. This practice of ruling the page was, by and large, not used in early Islamic times.²⁰ The calligrapher was expected to be proficient at working freehand, relying on his eye to assemble his text on the page. One of the signs of a fine calligrapher in this early period is his ability to write freehand, composing letters set on a straight baseline and uniform in size, without recourse to ruling.

Calligraphers in early Islamic times used a variety of angular hands to transcribe Koran manuscripts. Beginning in the late eighteenth century, Orientalists have used the name kufic (French *coufique*) to designate these scripts. The name was introduced to Western scholarship by Jakob Georg Christian Adler (1756–1834), a Lutheran cleric from Schleswig charged with cataloguing the Koranic material in the Royal Library at Copenhagen. The collection comprised only five fragments, and Adler grouped them all under the rubric kufic, a term that he had found in the works of the fourteenth century lexicographer al-Firuzabadi and the thirteenth century biographer Ibn Khallikan.²¹ The name refers to Kufa, a city in southern Iraq which was an intellectual center in the first centuries of Islam.

In some ways this choice was unfortunate, for historical sources do not describe the characteristics of the term kufic, but use it imprecisely to designate all or many early scripts used to transcribe the Koran. By the beginning of the nineteenth century, Orientalists realized that the term was poorly adapted for the variety of scripts that it might encompass, and some scholars have proposed alternative names for this script. Déroche suggested 'old' or 'early 'Abbasid' script.²² This too is an unfortunate choice, for such an angular script was already used in the late seventh century before the 'Abbasids came to power, as attested by textual sources, numismatics, and epigraphy (see Chapter 2). Rather than introduce yet another name that carries historical or geographic baggage, I have opted to maintain the traditional kufic, but it should be taken not as the name of a specific script used at a certain time or place, but as a general rubric for the angular style used in early Islamic times to transcribe the Koran.

After transcription, the quires of bifolios were usually sewn together into a codex and set in a binding that kept the parchment folios flat.²³ Normally, the textblock was attached so loosely to the binding that many covers have become detached from their books, making it difficult to date extant bindings.²⁴ The typical binding comprised two leather-covered wooden boards joined along the back of the volume by a leather spine, with a leather wall the height of the textblock around the three open sides. Pegs or thongs over the front or fore-edge kept the volume closed. Using a variety of stamps and tools, binders often decorated the covers with a wide braided border surrounding an oblong field filled with geometric decoration or an inscription, a design similar to that used on illuminated pages of text.

Methodologies for dating

There is, as yet, no absolute method for dating any Koran manuscript before the ninth century CE. No manuscript contains an authentic colophon with a date. No manuscript contains the authentic signature of a known calligrapher. Some manuscripts are said to have been in the hand of 'Umar, the second caliph, or of 'Ali ibn Abi Talib, the fourth, but Salah al-Din Munajjid proved these claims to be unfounded.²⁵

The most secure type of internal evidence for dating these manuscripts is a notice of pious endowment (*waqfiyya*) or other similar note recording a birth, attestation, or other event, and the earliest of these date to the ninth century. Several scholars have compiled lists of these dated manuscripts; the best is that by Déroche.²⁶ His fifteen Koran manuscripts written in angular script with uniform and regular rectilinear strokes used to draw the letters, especially the horizontals and verticals, can be distinguished from some two dozen non-Koranic texts, all written in a round hand that ranges in quality from hasty scrawl to fine calligraphy (see Chapter 5). A good example of the fine Koran manuscripts endowed to a pious foundation in early Islamic times (Figure 4.2) is the one donated by Amajur, 'Abbasid governor of Damascus from 870 to 878.²⁷ It is made of oblong bifolios measuring 13×40 cm.²⁸ To maximize the parchment, craftsmen patched together isolated sheets to make bifolios and inserted one or two of these patched bifolios within any quire, which probably consisted of the standard five bifolios. Like many other early Koran manuscripts, the Amajur set was probably bound in leather. A note added to one of the folios tells us that the Amajur Koran originally consisted of thirty parts, and according to an endowment notice at the end of part (*juz'*) sixteen, the manuscript was preserved in two trunks (*sunduqayn*).

The codicology of the Amajur Koran is thus typical, but its calligraphy is not. It is unusually spacious, with only three lines of script per page. It therefore required some two hundred folios for each of the thirty volumes.²⁹ The total manuscript would then have consumed



Figure 4.2 Page containing Sura 2:133 from a parchment Koran manuscript with three lines per page.

This folio comes from one of the few readily datable Koran manuscripts from early times.

The note added at the top of the folio says that it was endowed by Amajur, governor of Damascus. According to two endowment notices, he did so in 262/876. This date provides a *terminus ad quem*, though we do not know how much earlier the manuscript was made. It is written in an unusually spacious script, with only three lines containing some twenty-five letters per page.

the skins of well over three hundred sheep.³⁰ Such an enormous manuscript was obviously expensive. Most manuscripts of this size have many more lines of writing per page and are consequently much shorter books.

The importance of the Amajur Koran lies not only in its size and spaciousness but also in the documentation given in two notices of endowment: one at the beginning of the fourth part is dated Sha'ban 262/April–May 876; another just before the end of the sixteenth part is dated the following month (Ramadan 262/May–June 876).³¹ They provide a *terminus ad quem*, a date by which the manuscript must have been completed, although we do not know how much earlier it had been transcribed. According to one note, the manuscript was endowed in the port of Tyre (now in Lebanon), although the particular mosque or religious foundation is not given. We also do not know how long the manuscript stayed there. Like other manuscripts, it may have been transferred to Damascus for safe-keeping just before the Crusaders arrived in the twelfth century. In the late nineteenth century, most of the Amajur Koran was then moved from Damascus to Istanbul, but other pages went to Cairo. The Amajur Koran shows that manuscripts were peripatetic and that the site of preservation is not necessarily the same as the site of production. Many scholars have assumed otherwise, but Déroche has repeatedly pointed out the error of this assumption.³²

Lacking such an endowment note or other hard evidence like a colophon with names or dates, scholars have turned to other methods to assign date and provenance to these early Koran manuscripts. We can delineate three methodologies they have used, labeled here for the sake of convenience, the textual, the paleographic, and the art historical methods.

The first method used by scholars to localize and group parchment Koran manuscripts was to identify some of the early Koranic scripts from brief textual descriptions. The most famous text cited is the *Fihrist* (Index or Catalogue) written by Abu'l-Faraj Muhammad ibn Ishaq ibn Muhammad ibn Ishaq, usually called al-Nadim (or Ibn al-Nadim) because he was a boon companion (*nadim*) at the 'Abbasid court.³³ Born c. 935, he was the son of a professional book dealer or copyist (*warraq*) and a member of the Shi'ite elite of Baghdad. As a youth, he apparently began work compiling a catalogue of authors and the names of their works for use in his father's bookstore. With age, his interests broadened, and his *Fihrist* includes a great deal of additional material along with his notes about poets and scholars. Instead of the catalogue for a bookshop, it became an encyclopedia of medieval Islamic culture. He completed the work c. 987–8, and after he died in 990, the original copy was probably placed in the royal library at Baghdad.

Ibn al-Nadim's *Fihrist* opens with a section on language and calligraphy.³⁴ In it, he describes the languages of the Arabs and foreign peoples, the characteristics of their ways of writing, and their types of script and forms of calligraphy. He begins with remarks about Arabic writing and then turns to Himyarite script, the one used for an archaic west Arabian dialect. Under that rubric, Ibn al-Nadim mentions that the first of the Arabic scripts was the Meccan, followed by the Medinan, the Basran, and the Kufan. He next gives several characteristics of the first two types: in their *alifs* there is a turning of the hand to the right and an elevation of the ascenders, and in their form a slight incline.³⁵ Ibn al-Nadim then moves to scripts used to transcribe the Koran and names some copyists who were famous for doing so, including Khalid ibn Abi'l-Hayyaj, the person who designed mosaic inscriptions for the Umayyad caliph al-Walid (see Chapter 3).

In the mid-nineteenth century the Sicilian orientalist and statesman Michele Amari (1806–89) already used this brief section of Ibn al-Nadim's text to identify examples of Meccan script.³⁶ This script later became known as *ma'il* (leaning) after the next passage in the *Fihrist*, in which Ibn al-Nadim enumerates the scripts used to copy the Koran. This term, found in Gustav Flügel's Arabic edition of the *Fihrist* published in 1871, however, was based on a corrupt manuscript of the text. The word Ibn al-Nadim actually used was *munabadh* or *munabidh*. Derived from the root *nabadha* (fling or cast away), *munabadh* or *munabidh* is a participle from the third form (separate or secede) and is of unclear vocalization and meaning.³⁷

The *maʿil* script was then renamed *hijazi* after the region of north-west Arabia where both Mecca and Medina lie. Déroche, noting the variety of styles within the small number of manuscripts identified as written in *hijazi*, divided the category into four sub-types, the second of which included manuscripts formerly designated as *maʿil*.³⁸ The *hijazi* script is usually considered the earliest type of Arabic writing known and dated to the first and second centuries of the hijra (seventh and eighth centuries CE).

Estelle Whelan, in a seminal article written shortly before her untimely death in 1997 but unfortunately still unpublished, rebutted the arguments for the identification of *hijazi*, arguing that it was largely a scholarly artifact based on a series of methodological missteps.³⁹ In addition to the problems of interpreting the brief passage from the *Fihrist*, she pointed out two methodological errors. First, the characteristics of a single letter (in this case, the *alif*) is insufficient to define a script. Second, and more importantly, in this crucial passage about Meccan and Medinan scripts, Ibn al-Nadim was not talking about Koran manuscripts, but rather describing the earliest Arabic writing in general. In the earliest known copy of the text – a manuscript that was compared with the original in the author's handwriting, one that may well have been made under the author's supervision using the same style of script and page layout, and one that later belonged to the famous Mamluk historian al-Maqrizi – the text to illustrate the passage (Figure 4.3) shows the basmala, or invocation to God, in a rounded hand.⁴⁰ Such a script might have been used for regular correspondence or even for copying non-Koranic texts, but it was not the angular script used to calligraph Koran manuscripts. Only in the following section does Ibn al-Nadim describe Koranic scripts, including a Meccan, probably three Medinan, a Kufan, a Basran, and eleven or twelve other varieties or subvarieties, including the mysterious *munabidh*. Ibn al-Nadim makes no connection between the regular Meccan and Medinan scripts, with their tall *alifs* and slanted forms, and the scripts used for copying the Koran. Writing some three centuries after the events, Ibn al-Nadim may have been mistaken about some details of the earlier history of writing, but he made every effort to distinguish the categories he thought he knew. His text, though the most explicit, is too vague to be much help in identifying different scripts used for early Koran manuscripts.⁴¹

A second approach to assigning provenance to these early Koran manuscripts is paleographic. On the basis of minute variations in letter forms, manuscripts are grouped according to perceived similarities between the forms and the groups arranged in a sequence implying chronological development. French scholars, particularly Déroche, have pioneered this inductive approach, which is well illustrated in the lavish catalogue of the many fragments from Koran manuscripts in the Khalili Collection in London.⁴² Déroche followed the methodology used in Western paleographic studies, but the large number of homographs or similar letter shapes in Arabic led him to



Figure 4.3 Example of Meccan/Medinan script from Ibn al-Nadim's *Fihrist*.

This copy of Ibn al-Nadim's *Fihrist*, one of our earliest sources on calligraphy, was made soon after the author's death in 980 and compared with the original draft. The text, which describes the first of the Arab scripts from Mecca and Medina, whose *alifs* turn to the right and have tall ascenders and whose forms are slightly inclined, includes this calligraphic specimen (see detail).



Figure 4.3a

select six letter forms (independent and final *alif*, medial 'ayn/ghayn, final *mim*, final *nun*, and medial *ha*) as criteria. He also took into account several general considerations such as the overall appearance of the script, the connections between letters, and the relationship between thick and thin strokes.

The paleographic method presents problems as well. Nowhere is it demonstrated that the criteria chosen reveal significant differences in scripts, not just variations of an individual hand. The lack of clarity in defining styles is clear from the high number enumerated: Déroche identified at least nineteen variants among the seventy examples of what he called early 'Abbasid scripts in the Khalili Collection, with

some manuscripts identified as a combination of styles.⁴³ By focusing on isolated forms, this method also overlooks one of the peculiarities of Arabic script: the changing forms of the letters, which can assume different shapes and heights depending on the other letters in a word. It also excludes the information supplied by other features of the written page, ranging from the *mise-en-page*, or layout of the page, to the decoration, the relation between text and display scripts, and the overall aspect. In many ways, the paleographic method seems to have raised more questions than it has answered.

The problems with using such a method are compounded when the categories so designated become the basis for further arguments. In his groundbreaking catalogue of the fragments from early Koran manuscripts in the Bibliothèque Nationale, Déroche separated the manuscripts into groups, but by the time he catalogued similar folios in the Khalili Collection a decade later, he had assigned dates to these groups, which he assumed to be ordered chronologically.⁴⁴ The group he had designated as *hijazi*, he suggested, dated to the seventh and early eighth centuries on the basis of Ibn al-Nadim's brief description and the similarities to monumental inscriptions from sixth century Syria.⁴⁵ According to this argument, the *hijazi* style therefore predated his other groups (A–D), which he designated as early 'Abbasid. Déroche then took these dates as firmly established and assumed that the differences in letter shapes in different groups could be taken as an indication of chronological evolution. In later works he fitted individual letter shapes and the evidence from physical testing into this chronological framework. His methodology thus favors linear development over regional variation, though the means of transmission of a single style across wide distances is not specified.

The third method that has been used to classify early manuscripts of the Koran – and the one that I think holds the most promise – is art historical. Its main proponent is Whelan, who used traditional art-historical methods to distinguish two groups of early Koran manuscripts written in angular script.⁴⁶ She began by noting that in these early manuscripts the text is not written in words and phrases like modern Arabic, but rather in groups of connected letters that are separated by spaces (see Figure 1.5 for an example). These spaces form the basic skeleton of the page.

Five other features underscore the importance of this skeleton. First, the letters and connecting lines are written in broad uniform strokes. This arrangement allows for certain flexibility in writing connecting lines and horizontal letters such as *dal* and *sad*. Third, this flexibility lends itself more to extension than to contraction. Fourth, words (but never connected groups of letters) are freely divided between lines, regardless of pronunciation or sense. Finally, as Whelan pointed out, the letters can assume different shapes in different positions or combinations. By analyzing letter bodies alone, the main feature of the paleographic method, these relations between letters are overlooked.

Whelan then enumerated several of these important relations between letters. The letter *alif* sets the upper limit of each line, but the other letters can vary depending on which letters they are connected with. Looped letters are generally designed in proportion to *alif*. An additional method for fitting the text to the page involves the letter *ya*, which could have a long tail extending to the right. When a word ended in final *ya*, the calligrapher often left a wider space between groups of letters so that the tail of the *ya* could extend backwards across the gap.

To test her theory, Whelan distinguished two groups of manuscripts with opposite characteristics, using a typical manuscript with an established provenance to exemplify each group.⁴⁷ Her Group 1 (Figure 4.4) is exemplified by a manuscript with five lines per page (average dimensions 13 × 22.5 cm) that is divided between several institutions, some of which have held the pages since 1655.⁴⁸ Group 2 (Figure 4.5) is exemplified by a large manuscript with twenty lines per page (average dimensions 40 × 31 cm) that is known to have been in the Egyptian delta before 1905 and is now in the Chester Beatty Library.⁴⁹ It bears an eighteenth century note saying it was considered to have been written by the third caliph 'Uthman, making it one of a handful of manuscripts spuriously attributed to his hand.⁵⁰

Whelan also enumerated other manuscripts with similar characteristics that belonged to the two groups. Group 1, for example, includes another manuscript with nine lines to that page and an endowment notice saying that the thirty-part codex was given to the Great Mosque of Damascus in Dhu'l-Qa'da 298/July 911 by 'Abd al-Mun'im ibn Ahmad.⁵¹ Her criteria show that the Koran endowed by Amajur (Figure 4.2) also belongs to this group. Group 2 includes a fragmentary manuscript discovered in San'a that has a extraordinary double frontispiece showing an architectural scene.⁵²

These two groups differed, first of all, in format and layout. Manuscripts in Group 1 (Figure 4.4) are horizontal (landscape) and relatively small, with an odd number of lines per page, whereas those in Group 2 (Figure 4.5) are vertical (portrait) and relatively large, typically with an even number of lines per page. Those in Group 1 are divided into parts (*ajza*) and have liturgical divisions and regular markers for verses or groups of verses. On the page illustrated here (Figure 4.4), for example, a gold rosette marks the end of single verses, as in the last verse of Sura 31 at the end of line two. On other pages, a gold *ha*, the alphanumeric for five, marks the end of five verses; and a large gold circle, representing zero, marks the end of every ten verses. Manuscripts in Group 2 do not have such divisions. Rather, individual verses are marked by groups of four or five very thin diagonal strokes written in the same ink as the text. Groups of five and ten verses were sometimes marked by crude circles, as in the red-orange circle marking verse fifty on line six of the page illustrated here (Figure 4.5). These circles were clearly added after the text was transcribed, but we do not know when.⁵³

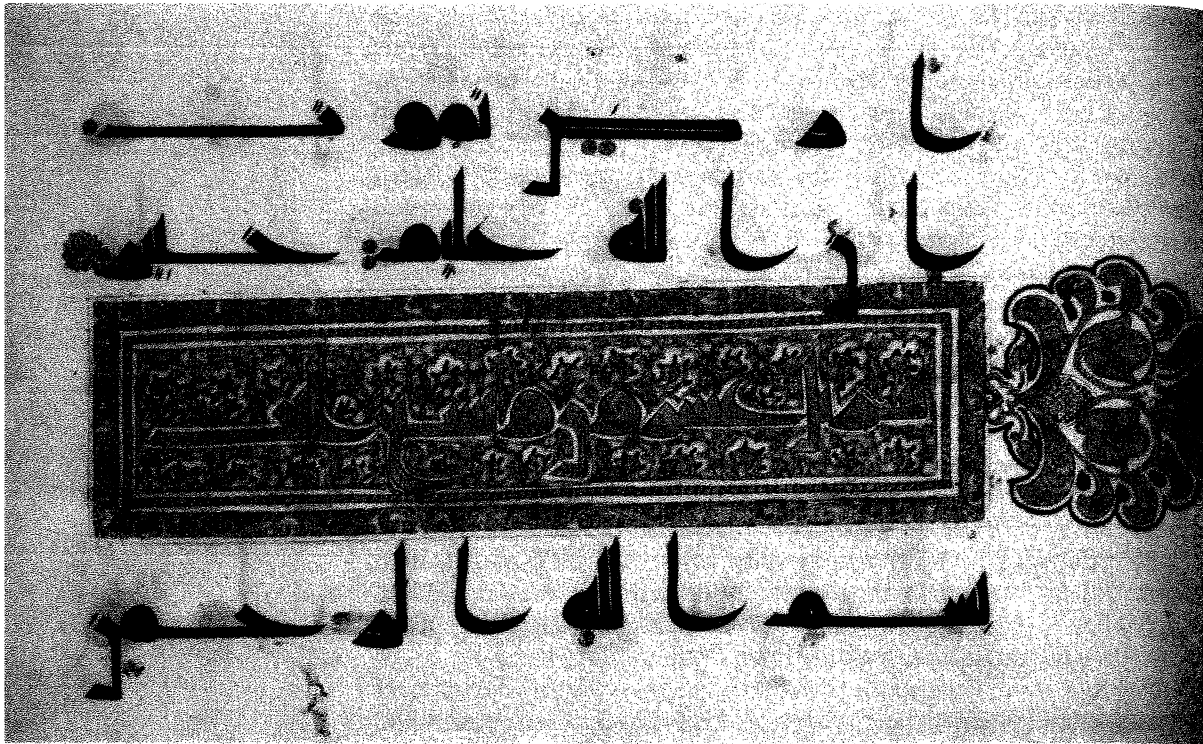


Figure 4.4 *Page containing Sura 31:34–32:1 from a parchment Koran manuscript with five lines per page. The horizontal format, odd number of lines, wide spacing, attenuated and elongated letters, elaborate chapter heading, and uniform strokes make this folio the classic example of Whelan's Group 1. Such chapter headings are always added in a different script or color from that used to pen the text to show that the headings are not part of the original revelation. Folios from this manuscript in the Bodleian Library were examined by Yasin Dutton, who showed that the red dots were used for vocalization and green dots for variant readings.*

The chapters are also separated in different ways. Manuscripts in Group 1 have chapter headings painted in gold, sepia, and dark brown, with occasional touches of green, and titles in gold with reserved contours. The one illustrated here (Figure 4.4), a gold rectangular band with palmette projecting into the margin, is typical. Instead of openings or titles, manuscripts in Group 2 have polychrome decoration without gold at the end of the chapters, as the one marking the end of Sura 34 painted in blue, green, red, white, and yellow in the middle of this page (Figure 4.5). These are often squeezed into the text so that they impinge on the very bottom or surround a word or two of the last line of text. In both cases, however, the chapter separators are drawn with a dry point, although the text is written freehand.

The interrelation among letters is also distinct in each group of manuscripts. Manuscripts in Group 1 have taller vertical letters and fairly wide spacing between lines, whereas those in Group 2 have squatter vertical letters and tighter line spacing in which ascenders

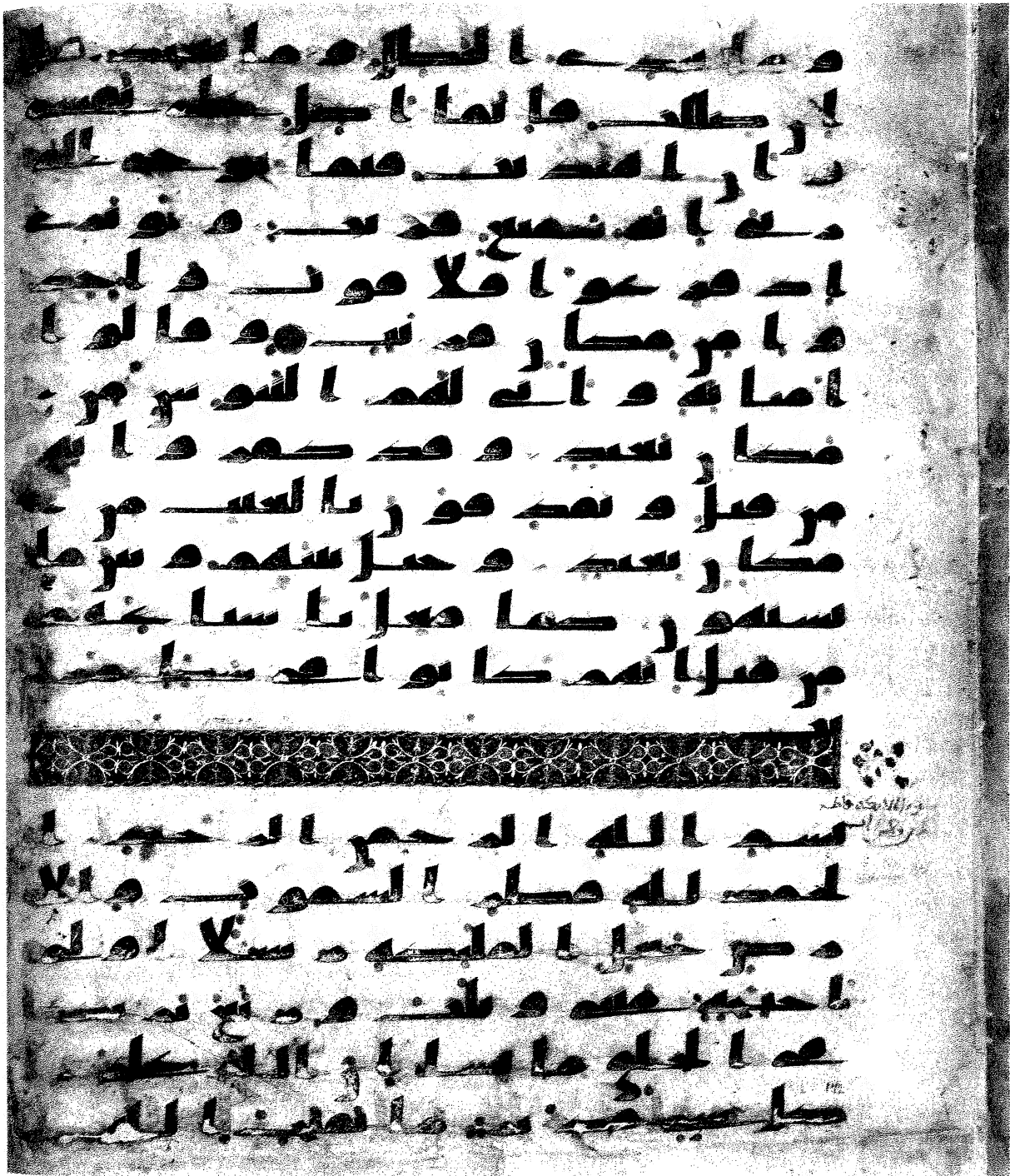


Figure 4.5 Page containing Suras 34:49–35:2 from a parchment Koran manuscript with twenty lines per page. The vertical format, even number of lines, tight spacing, squat letters, lack of divisions, and illuminated chapter ending made this folio the classic example of Whelan's Group 2.



Figure 4.4a



Figure 4.4b



Figure 4.5a



Figure 4.5b



Figure 4.5c

and descenders sometimes impinge on another line, forcing frequent adjustments to the spacing, as in line ten, where the calligrapher had to put an extra long connector before the *lam* in *wa-hila* to avoid touching the descending *nun* of *wa-yaqdhifuna* from the line above. In Group 1 manuscripts (Figure 4.4a), the strokes and connectors are uniform in width. In Group 2 manuscripts, however, the stroke used for the baseline is thinner than the one used for the bodies of the letters, as in the connector between *ha'* and *mim* in the word *al-rahman* (Figure 4.5a).

Whelan also distinguished different forms of individual letters. For example, the tails of *qaf* and *ya'* differ. In Group 1 manuscripts, the tail of *qaf* is shaped like a small *dal* (Figure 4.4b), and *ya'* can have any of three tails: a *dal*-shaped tail like the one used for *qaf*, a deep angular tail like the final *nun* in a word such as *al-rahman*, or a longer stroke that returns to the right. By contrast, in Group 2 manuscripts the tail of *qaf* is shaped like a sickle (Figure 4.5b) and *ya'* can have only one of two tails, occasionally like the one on final *nun*, but typically one that returns to the right, as in the last two words in lines two and three on the page (Figure 4.5). The upper stroke of *jim* is curved in Group 1 manuscripts, but straight in Group 2. Compare the *ha'* in *al-rahman* from the basmala in the last line of (Figure 4.4a) with the same phrase on the top line of (Figure 4.5a). In both groups, connecting letters preceding *jim* are raised on a secondary baseline. This was always the case in Group 1 manuscripts, but in Group 2 manuscripts the letters are sometimes connected differently to maintain a uniform baseline that is bisected by the descending diagonal stroke for *jim*, as in the word *ajnihatin* from the third line up from the bottom (Figure 4.5c).

Based on her findings, summarized in a table (Figure 4.6), Whelan concluded that both groups were made by professional copyists for use in mosques. Manuscripts in Group 1, with their division into parts and liturgical aids, were meant for recitation; manuscripts in Group 2, of monumental size, were designed to be set on the large reading stands known as *kursis*. Both groups were thus to be distinguished from other Koran manuscripts, notably those written on paper in so-called broken cursive, which she connected with the chancery tradition (see Chapter 5).

The differences between two groups of Koran manuscripts, she further argued, were more consonant with geographic rather than chronological divisions. In other words, she argued, these two groups were produced not at different times but in different centers. She connected Group 1, with its interest in such liturgical matters as dividing the text into sections (*ajza'*) and prominently marking the ends of verses, with the Hijaz or Iraq, particularly the latter, the two areas where these subjects were of greatest concern. Group 2, she felt, reflected a school of copyists who were not as interested in the same set of textual and liturgical issues.

To resolve the problem of attribution, Whelan wanted to turn to an examination of the decoration used in the two groups of manuscripts.

Distinguishing Features of Two Groups of "Kūfic" Qurʾān Manuscripts

group 1	group 2
horizontal format	vertical format
relatively small format	large format
divided into <i>ajzāʾ</i>	not divided into <i>ajzāʾ</i>
illuminated <i>sūrah</i> openings in gold, sepia, and dark brown (occasionally with the addition of green), with titles in gold with reserved contours	polychrome ornamental <i>sūrah</i> endings without gold and with no titles; some gold in frontispieces and borders of opening pages of Qurʾān (one surviving example)
liturgical divisions and verse groups marked	liturgical divisions and verse groups not marked
odd number of lines per page	even numbers of lines per page
fairly wide line spacing and taller vertical letters	tighter line spacing and squatter vertical letters
generally uniform stroke for letter bodies and connecting lines	base-line stroke slightly thinner than stroke for letter bodies
tail of <i>qāf</i> in form of small <i>dāl/ḥāl</i>	tail of <i>qāf</i> sickle-shaped
<i>yāʾ</i> with any of three tails	<i>yāʾ</i> with either of two tails
upper stroke of <i>jīm/ḥāʾ/khāʾ</i> curved; preceding connected letters always raised on secondary base line	upper stroke of <i>jīm/ḥāʾ/khāʾ</i> straight

Unfortunately, she had only begun the second part of her article before her untimely death, so we do not know what evidence she had adduced about ornament and what center(s) she proposed for her Group 2 manuscripts.⁵⁴ In the brief introduction, however, she already brought to light some chronological considerations by comparing the scripts used in the manuscripts of her Groups 1 (Figure 4.4) and 2 (Figure 4.5) with the script used in the mosaic inscription at the Dome of the Rock (Figure 3.7). All three share many features. They all have the same aspect, with a uniform broad stroke for letter bodies, approximately uniform spaces between groups of connected letters, flexibility (usually expansion) of the baseline between letters, short thin strokes for diacriticals, varying heights of toothed letters, and standard dimensions for looped letters. They also share certain letter forms, including *alif* with right-turning foot; final *mim* with a horizontal rather than a vertical tail; medial *ʿayn* as an open V on the baseline; *haʾ* as a single loop in isolated or final position, but a teardrop bisected by a diagonal line in initial or medial position; *dāl* with an upper stroke that is hairline-thin and diagonal; and isolated *baʾ* that begins with a slightly curved stroke. Internal relations are the same as well: the tails of *sin* and *sād*, for example, are identical to those of final *nun* within each tradition.

Nevertheless, she noted several differences between the script used at the Dome of the Rock and that found in early Koran manuscripts. In the Dome of the Rock inscription, *mim* is a circle centered on the baseline, whereas in early Koran manuscripts the loop of *mim* sits on the baseline (see Figures 4.4a and 4.5a). Furthermore, the inscription on the Dome of the Rock maintains a single baseline, which is

Figure 4.6 Table of Whelan's Group 1 and 2.

This table summarizes the differences in the two styles of early Koran manuscript distinguished by Estelle Whelan.

bisected by the straight stroke for *jim*. This is sometimes the case in Group 2 manuscripts (Figure 4.5c), but more often the letters preceding *jim* are raised to a secondary baseline, the situation that always pertains in Group 1 manuscripts. Furthermore, in the Dome of the Rock, final *ya'* has only one tail: in all thirty-five cases, it returns to the right. While this tail is typical of Group 2 manuscripts, the tail of final *ya'* there can also end like final *nun*,⁵⁵ and in Group 1 manuscripts, final *ya'* can also have a third tail shaped like a *dal*. The Dome of the Rock inscription also uses the sickle-shaped tail on *qaf* found in Group 2 manuscripts (Figure 4.5b) rather than the *dal*-shaped tail found in Group 1 manuscripts (Figure 4.4b). Whelan therefore argued that the Koran manuscripts of both Groups 1 and 2 belong to the same calligraphic tradition as that represented by the mosaic inscription in the Dome of the Rock, but show a greater evolution within the type as attested by features such as the secondary baseline and the multiple tails, found especially in Group 1 manuscripts.

Considerations for further study

Even without knowing Whelan's final conclusions about the localization of manuscripts in her two groups, it is clear that she has brought out many significant points for studying these early Koran manuscripts. Most importantly, she showed that the manuscripts themselves have much information to yield. In this sense, art-historical investigation runs parallel to (and often incorporates) paleographic analysis. In contrast, textual sources are not very helpful in studying early Koran manuscripts.⁵⁶ The texts were manuals drawn up to provide clerks or secretaries *kuttāb* (sing. *katib*) in the 'Abbasid chancery with a set of rules for the practical details of their profession. In his handbook for secretaries, the tenth-century *littérateur* al-Sulī specifically cautions secretaries to take a middle course, avoiding the extremes represented on the one hand by the careless work of commercial copyists and on the other by the artistry of professional calligraphers who used their skill to adorn Koran manuscripts, special state documents, and royal correspondence.⁵⁷ These manuals do not, therefore, have much bearing on early Koran manuscripts.

Whelan used several examples from the *Kitāb al-Kuttāb* by the grammarian Ibn Durustwayh (850–947) to drive home the point that these secretarial treatises do not apply to Koran manuscripts penned in angular script.⁵⁸ Ibn Durustwayh expressly exempts Koran copying from the principles of orthography and writing that he sets forth in his manual. He notes that letters were given different shapes in the scripts used by copyists of Koran manuscripts (*masahif*), other copyists (*al-warraqun*), and secretaries (*al-kuttāb*). Whelan gave the example of final *ya'*. Ibn Durustwayh says that its tail should not extend backwards beyond the limit of the letter group to which it belongs. This principle was clearly violated when copying the Koran. Ibn Durustwayh must have known about such examples; otherwise

he would not have condemned such usages. The grammarian also cautions secretaries not to break words between lines, and his compatriot Abu Hayyan al-Tawhidi (d. after 1009–10) warns them not to use tannin-based brownish ink, both features standard in parchment Koran manuscripts.⁵⁹ Thus, Whelan proved that these scribal manuals, used extensively by Nabia Abbott and other advocates of the textual approach, will not provide much information about Koran manuscripts.

While textual sources are not much help in dating and localizing these early Koran codices, several features of the manuscripts themselves may be. One is codicology. Although Déroche found that among the early parchment manuscripts in the Bibliothèque Nationale, the typical manuscript is composed of quinions,⁶⁰ some manuscripts had different sorts of quires. One manuscript in the Bibliothèque Nationale (ms. Arabe 328a), for example, had quaternions (quires with four bifolios), in which the order of the hair and skin sides varied.⁶¹ Since Déroche considered this manuscript was in *hijazi* script and therefore datable to the late seventh or early eighth century, he concluded that in this early period the composition of the quire varied.⁶² More study might determine whether quire composition was a distinctive feature of certain groups of manuscripts made at particular times or places. Quaternions also occur, for example, in the type manuscript for Whelan's Group 1 (Figure 4.4) and in a large fragment from a horizontal-format Koran manuscript with seven lines in the National Museum in Tehran.⁶³ In later times, the arrangements of quires also differed in different places. The ternion, for example, was particularly popular for Koran manuscripts made later in the Maghrib.⁶⁴

Another avenue of investigation that might be pursued in the manuscripts themselves is decoration. Some preliminary attempts have been made to analyze the decoration of individual manuscripts, particularly the trove found in San'a, including the large one that has an architectural frontispiece.⁶⁵ In general, however, the methodology for these analyses is weak, for the range of comparative material is limited to the Umayyad period to which the manuscripts are *a priori* thought to belong. No comparative material is taken from a broader chronological or geographical range to establish that different motifs were used at other times or places.

Whelan examined one element of decoration – the wording of verse numbers given in *sura* headings often used in Group 1 manuscripts, and her analysis showed how revolutionary such information can be. The number of verses is always written out in words, but in Group 1 manuscripts the count is given in an unusual descending sequence of hundreds, tens, and units. The chapter heading from the page illustrated here (Figure 4.4) gives simply *tanzil* (revelation) rather than given the usual name *Sajda* (Prostration; Sura 32), followed by the information that it contains twenty and nine verses (*'ashrun wa tisa' ayat*).⁶⁶ Such a descending numerical sequence is contrary to standard Arabic usage, in which numbers are given in ascending order of

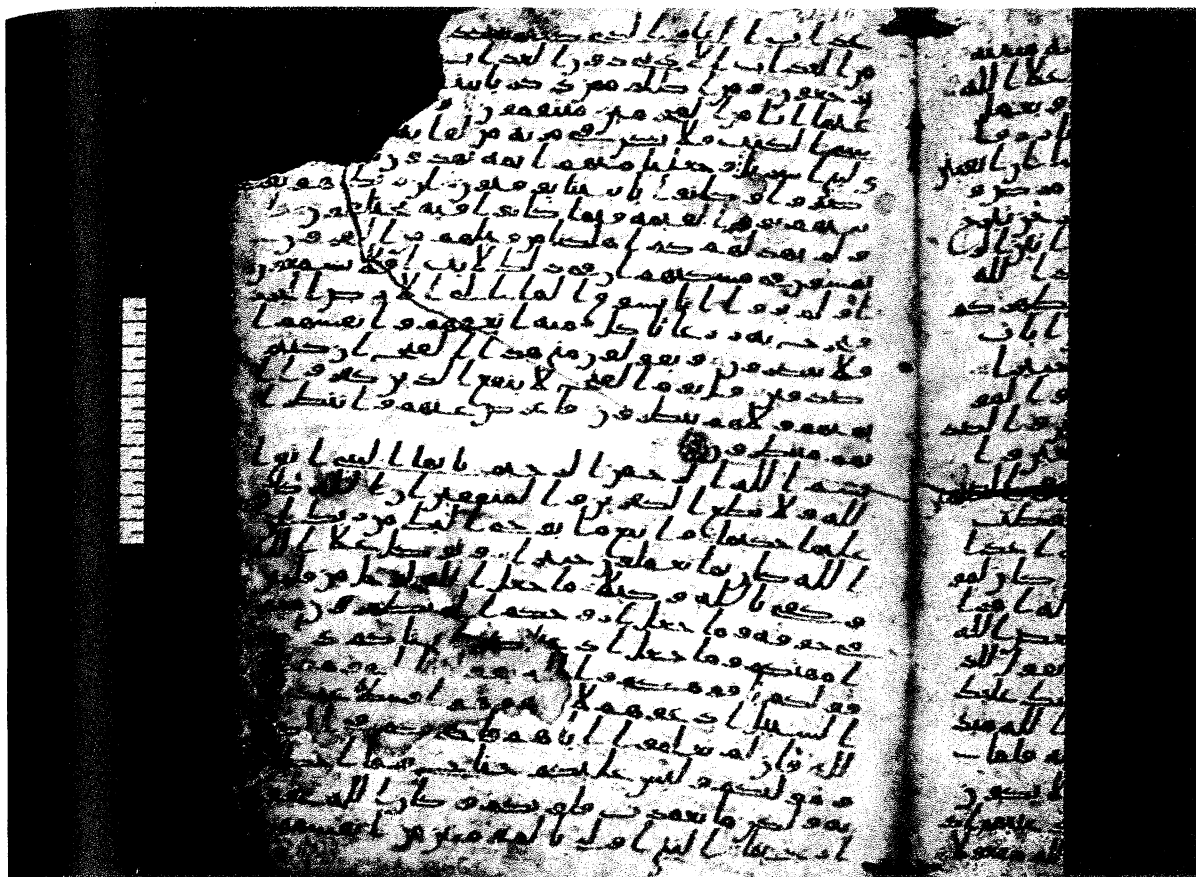
units, tens, and hundreds. This unusual sequence of numbering was, however, standard in most Semitic languages spoken in Arabia and was probably used before the codification of Arabic grammar in the ninth and tenth centuries. Whelan pointed out that it would have been difficult to revive an archaic system once it had died out. Rather, she argued, such an archaic system must have been in continuous use, and therefore the manuscripts in Group I with *sura* headings and verse counts given in an unusual sequence of numbers might represent some of the oldest.⁶⁷

Whelan's analysis of the numbering system used in chapter headings thus reversed the traditional chronological arrangement of Koran manuscripts based on decoration that had been established by Adolf Grohmann and others in the early twentieth century.⁶⁸ According to this arrangement, which has been generally but uncritically accepted,⁶⁹ manuscripts lacking ornamental divisions between *suras* were considered the earliest. These were assumed to have been followed by Koran manuscripts with purely ornamental divisions at the ends of the *suras* and then later by Koran manuscripts with ornamental headings containing the written titles of the *suras*.

This new ordering of manuscripts, in which those with ornamental bands may be among the earliest, finds support in one of the fragmentary manuscripts discovered in San'a (Figure 4.7).⁷⁰ The fragment is a palimpsest, a parchment from which the writing has been scraped to make room for another text. The recto of the folio illustrated shows twenty-nine lines of tall, slanted script written on very tall sheets of parchment measuring 37×28 cm. A rosette in the middle of the page marks the end of Sura 32 (*Sajda*, Prostration). The introductory basmala of the next *sura* begins at the extreme right of the following line, without any space for an ornament.

The text in dark-brown ink has been written on top of another text in light-brown ink, which is partially visible at the bottom of the folio. Although difficult to decipher, the earlier text has also been identified as Koranic. It is written in a similar style of script, but the letters are more strongly inclined and have deeper curves. What is interesting for us is that the earlier text contains an ornamental band, faintly visible at the bottom of the page between lines 26 and 27 of the later text. The palimpsest proves that manuscripts with decoration between *suras* could pre-date those without. We have no idea of how much time elapsed between the transcription of the two texts, but it could have been quite a while: the Codex Arabicus in the Monastery of St Catherine at Mt Sinai was reused four times over a period of some five centuries.⁷¹

Both codicology and decoration of manuscripts are areas of investigation that can be pursued by art historians, but other topics require the expertise of different specialists, particularly scholars of the Koran and the rise of the Arabic language. One potentially fruitful avenue of investigation is the thorny question of vocalization and variant readings, a topic of fierce debate from the first centuries of



Islam to the present.⁷² Ibn al-Nadim listed eleven different works on the disagreement among codices (*ikhtilaf al-masahif*). In attempt to put an end to these arguments, Ibn Mujahid (d. 936), a Baghdadi scholar who was renowned for his study of the subject, composed a book on the seven accepted readings – one each from Medina, Mecca, Damascus, and Basra, and three from Kufa. Although widely cited, his treatise did not end the discussion. Other readings were also accepted, and scholars began to speak of the ‘three after seven’ and then ‘four after ten.’

The Koran manuscripts in kufic bear witness to the variant readings and the struggle for uniformity in this early period.⁷³ Like the inscription in the Dome of the Rock, the manuscripts are written in the so-called *scriptio defectiva*, in which only consonants are written, and many are vocalized with dots, primarily red, green, yellow, and blue. Yasin Dutton, one of the few scholars to have studied these dots, found eight different patterns, ranging in complexity from no dots to dots of four colors.⁷⁴ For example, the folios he examined in Bodleian Marsh 178, the manuscript that Whelan had used to exemplify her Group 1 (Figure 4.4), had, as did half of the manuscripts that he considered,

Figure 4.7 Page containing Suras 32:20–33:6 from a parchment Koran manuscript with twenty-nine lines per page found in the Great Mosque at San’a.

The page is a palimpsest: the ornamental band and letters of the earlier text are visible in the bottom left. This page shows therefore that Koran manuscripts decorated with ornamental bands could pre-date those without such bands, thereby upsetting the common assumption of chronological development from plain manuscripts to those with ornamental bands for chapter headings.

both red and green dots. Red was used for normal purposes, that is, for short final vowels, *tanwin*, *hamzas*, and certain initial and/or medial vowels. Green dots were used for variant readings, either the seven or ten accepted readings or the four further 'irregular' (*shadhdh*) readings, and for other grammatical reasons.⁷⁵ In addition, red and green dashes were used for consonantal variants (e.g., *ya'* instead of *ta'*).

Dutton concluded that in early Koran manuscripts red dots were used for three major purposes – to mark vowels, *hamza*, and *shadda* – and occasionally for other purposes, such as *imala*. Green dots were used in two main, usually exclusive, ways: to mark *hamzat al-qat'* (disjunctive *hamza*) or for variant readings. Yellow dots were used to mark variants, either all variants when green dots were used for *hamza* or secondary variants when green dots were used to indicate variants within the accepted seven or ten. The yellow dot used to mark *hamza* – a feature that al-Dani (d. 1052), a lawyer and Koran reader born at Córdoba, notes as typical of Medina and the Maghrib – did not occur in Dutton's sample from the Bodleian, although he did find it in other published manuscripts such as BL Or. 11562A and the fragmentary Vatican 1605. Typical of later Koran manuscripts from the Maghrib, this feature also occurs in one copied in Palermo in 372/982–3 (Figure 5.4). Blue dots marked yet more variant readings: used in combination with green and yellow dots, they mark a third set of variants. Blue dots used to mark *hamzat al-wasl*, another feature mentioned by al-Dani as common among the vocalizers of al-Andalus, did not occur in Dutton's sample, though he found them too in the Palermo Koran as well as later manuscripts from the Maghrib.

Although based on a small sample, Dutton's study led to several preliminary observations. The differently colored dots were used to highlight variant readings. These dots indicated that irregular variants were treated as seriously as canonical readings, suggesting therefore that these manuscripts may date from the time before the seven, ten, or fourteen readings were fixed. Dutton was also able to identify several different readings. The reading of the Damascene Ibn 'Amr, for example, was used in a large vertical-format manuscript that is often reckoned to be one of the earliest copies to survive and a prime example of the 'hijazi' script.⁷⁶ The most popular reading was the one by the Basran Abu 'Amr. Now common in Africa,⁷⁷ it was widespread in medieval times, as in the famous copy penned by Ibn al-Bawwab at Baghdad in 391/1000–1 (Figure 5.8). Abu 'Amr's reading was used in three of the manuscripts Dutton examined, all of which shared several other features, such as the use of green dots used for *hamza* and the Basran numbering system of verses. Finding such a cluster of features may be the basis for establishing distinct traditions of Koran readings, if not places or dates of manuscript production. These studies of vocalization and readings need to be combined with art-historical analyses of the kind begun by Whelan.

Space allows us here to examine just two examples to show how the pointing and vocalization systems used in these early copies of

the Koran can help localize manuscripts, in this case to the Maghrib. These examples give a good idea of the kind of information that can be derived from such study and show how this information can be combined with other methodologies to group these early and undated Koran manuscripts. It may well be possible to extend these kinds of analyses to other areas and other groups of manuscripts, but further work, combining the expertises of different types of scholars, is clearly needed.⁷⁸

Manuscripts made in the Maghrib are said to have orange dots to mark disjunctive *hamza* and green dots for connective *hamza*. The eleventh-century expert al-Dani reports that vocalizers in al-Andalus commonly mark *hamzat al-wasl* by putting either a green or a blue dot near the *alif*.⁷⁹ This system was already in operation by the ninth century, for al-Dani notes that he himself had seen a Koran manuscript transcribed in 227/842 by Hakim ibn 'Imran al-Naqit, a vocalizer from al-Andalus, that had red dots for vowels, green dots for connective *hamza*, and a thin red line for vowels of liasion, *sukun*, and *shadda*.

This system of dotting is found on pages (Figure 4.8) from a dispersed Koran manuscript transcribed in dark-brown ink on parchment with three lines per page.⁸⁰ The text is penned in a distinctive stately hand in which the elongated bodies of the letters contrast

Figure 4.8 Page containing Sura 23:49–51 from a parchment Koran manuscript with three lines per page.

This manuscript may be attributed to the Maghrib because it uses a distinctive system of vocalization, with orange dots used for disjunctive *hamza* and green dots for connective *hamza*. Certain stylistic features, such as the exaggerated and hair-thin tail, also foreshadow later traits found in manuscripts made in that region.





Figure 4.8a



Figure 4.8b

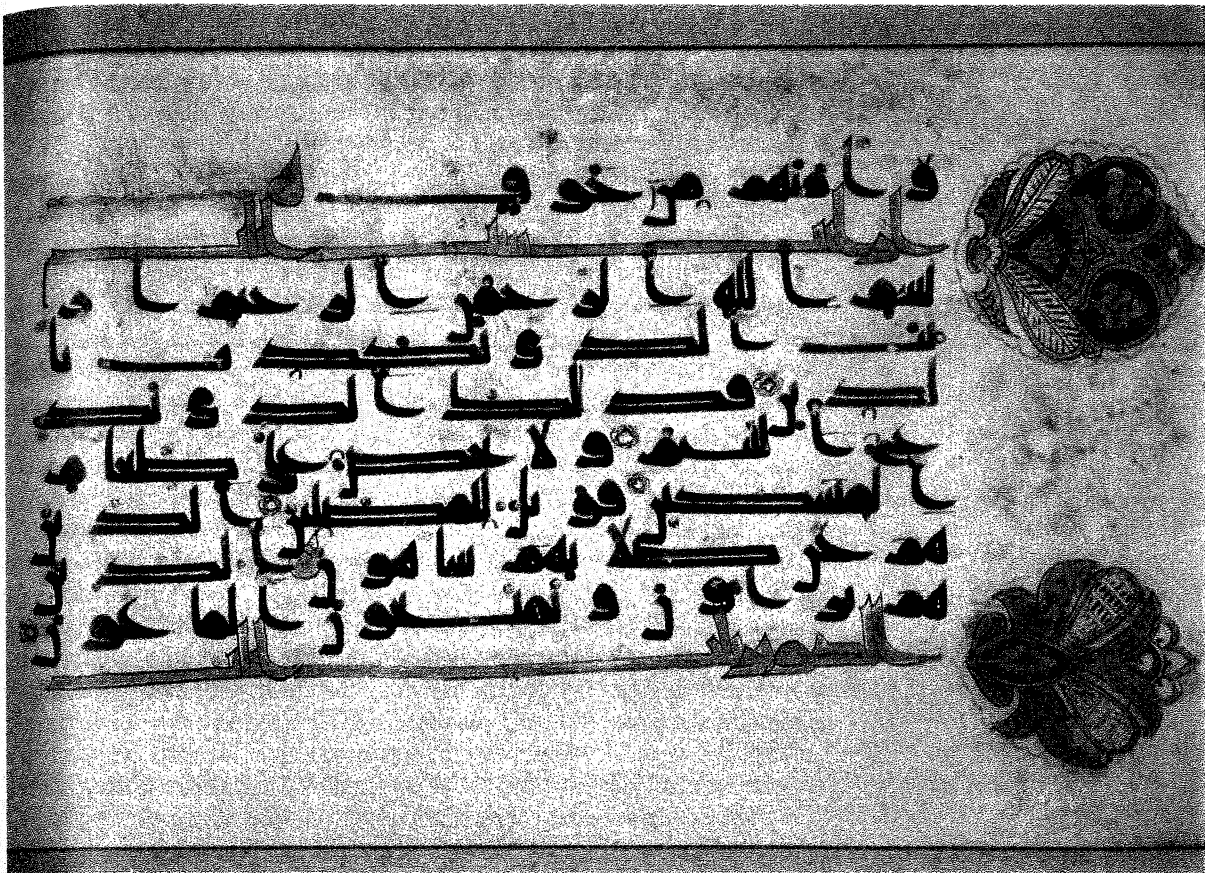


Figure 4.8c

sharply with the large rounded bowls of the tails that descend beneath the baseline. There is an equally stark contrast between the thick strokes of the letters and the hair-like lines used for pointing. Verses are marked with six gold balls arranged in a triangle, and groups of five are marked with a gold circle inscribed with the number of the verse (here *khamṣun*, fifty).

Certain stylistic features of the script in this three-line copy of the Koran, such as the hair-thin tail of the *mim* in *miryam* at the left of the upper line (Figure 4.8a) and the swooping tails of final *nun* (Figure 4.8b) and *ya'* (Figure 4.8c), foreshadow the later *maghribi* style. The Nurse's Koran (Figure 5.5), transcribed for the nurse of the Zirid amir al-Mu'izz ibn Badis at Kairouan in 410/1020, for example, has a similar thin tail to *mim* and other letters. The swooping tail became a hallmark of the later *maghribi* style (see Chapter 6). Such stylistic similarities bear out the attribution of this three-line Koran manuscript to the Maghrib. This manuscript is one of the few kufic copies of the Koran with so few lines per page, and hence such a profligate use of parchment. Like the Amajur Koran (Figure 4.2), it must have been an expensive presentation copy. Assuming the attribution to the Maghrib to be correct, then the manuscript was probably made for one of the major mosques in the region, such as the Great Mosques of Córdoba or Kairouan or the like. Verifying this attribution is important, as the same style of lettering and decoration is found in other manuscripts, such as a larger (34 × 49 cm) Koran manuscript with seven lines per page.⁸¹

A second example of how to use vocalization to localize a group of Koran manuscripts to the Maghrib follows a slightly different methodology, in this case working from a manuscript with an established provenance and comparing features in that manuscript to an undated fragment. The identification of several features typical of later *maghribi* manuscripts then reinforces the suggested provenance and allows the delineation of a set of coincident features typical of the group. The earliest Koran manuscript with a secure provenance in the Maghrib is a parchment manuscript in broken cursive made at Palermo in 372/982–3 (Figure 5.4). In addition to yellow dots for *hamzat al-qat'* and blue dots for *hamzat al-wasl*, it uses a distinct system of vocalization, with a thin red slash for unwritten long *alif* and a semicircle for *shadda*. The same system is used on an undated Koran fragment on parchment (Figure 4.9).⁸² The eleven folios, each with ten lines to the page, are now bound in a jumbled order, but contain the last twenty-two *suras* of the Koran (93–114). This corresponds to the last sixtieth (*hizb*) of the text, a division found in other Koran manuscripts made in the Maghrib, such as a copy done at Valencia in 596/1199–1200 (Figure 6.16). The elongated letters are penned in brownish black ink. Chapter titles are written in gold ink outlined in black and marked with stunning palmettes drawn in red and green.⁸³ The first and last pages have full-page decoration with an oblong field. On the first, the field is divided



into two squares, each filled with a circular boss.⁸⁴ On the last, the field is filled so that it resembles a checkerboard. On the basis of this polychrome ornament, Rice attributed this manuscript to the Maghrib.⁸⁵

Along with the unusual system of pointing and exuberant decoration, other features of this Koran manuscript reinforce the attribution to the Maghrib. The chapter headings, for example, do not always follow the usual system of names, but offer variants, often the first word of the *sura*. For example, Sura 96, usually deemed the first *sura* of the Koran to be revealed, is not named *al-'Alaq* (The Blood Clot), but *Iqra'* (Read), the opening word of the *sura*. Similarly, Sura 107 (Figure 4.9) is not called *al-Ma'un* (Charity), but *Ara'ayta* (Did you see?). Furthermore, the titles do not use the *scriptio defectiva* standard for transcribing the Koranic text in these early manuscripts, but write out long *alif*. Thus, in the title on the second line the word *ara'ayta* is written out with long *alif* in the middle, but in the text this *alif* is not written and its place indicated by a red slash. Writing out long *alif* is another characteristic of *maghribi* script, where words such as *hadha* (this) are often written with long *alif*.⁸⁶

Figure 4.9 Page containing Sura 107:4–108 from a parchment Koran manuscript with ten lines to the page.

This manuscript too may be attributed to the Maghrib because it uses a distinctive system of pointing, with a thin red slash for unwritten long *alif* and a round hook for *shadda*.

Accepting the attribution to the Maghrib, it may then be possible to use other unusual features of this manuscript to connect it with others and localize a group of manuscripts to that region. Unusual verse counts, for example, offer yet another avenue of investigation.⁸⁷ The ones in this fragmentary Koran manuscript differ from those in standard editions. On this page (Figure 4.9), Sura 107 has six verses, rather than the standard seven given in the Standard Egyptian and Flügel editions of the text. Different systems were often used to divide and number the verses within any given *sura*, particularly a long one that does not have a strict internal rhyme. Following the Indian tradition, used by Pickthall in his translation of the Koran, for example, *suras* 6, 18, and 36 have one more verse division than they do in the Standard Egyptian version.⁸⁸ Even if one accepts the usual divisions, the numbering can vary depending on whether the basmala and the mysterious letters at the beginning of several *suras* are counted as verses. Publication of a fragmentary manuscript from this early period, then, should include information about the verse counts.

The avenues of investigation suggested so far – ranging from codicology and decoration to systems of recording numbers, vocalization, readings, and verse counts – are all visual and require only close examination of the folios themselves, but there are other methods of scientific testing that can also help in dating and localizing early parchment manuscripts. The best known is radiocarbon analysis. The method of dating organic substances by analysis of the relative presence of carbon isotopes was developed in the late 1940s and applied almost immediately to verify the age of works of art. The early method for measuring radiocarbon used a liquid-scintillation counter that required large samples of the work to be consumed, but in the late 1970s scientists had developed a new method using an accelerator mass spectrometer that required far smaller samples (less than one-thousandth of the material required by the older counter methods). Such new methods have been used persuasively to date medieval textiles, including the shroud of Turin.⁸⁹

These scientific methods must be used with an established protocol and a consistent methodology, and the radiocarbon testing on the troublesome Persian silks once attributed to tenth century Iran brought to light some of the pitfalls in using such analysis to date works of medieval Islamic art.⁹⁰ Radiocarbon analysis requires clean samples that are as free as possible from visible contaminants. Cleaning the silks caused its own problems, and the first tests produced unexpectedly (and historically unacceptable) early dates. When the textiles were cleaned in a different way, the radiocarbon analysis produced later (and historically more acceptable) dates. Only by applying the same technique to a sample with an established date was it possible to determine that the first tests were inaccurate and that an alternative treatment had to be used to prepare the samples for testing. Therefore, to accept the validity of radiocarbon testing on

a particular manuscript, it is essential to know that the method is accurate and acceptable for a securely dated example, such as the Amajur Koran, whose *terminus ad quem* of 262/876 is established by the endowment notice.

Radiocarbon dating also produces a chronological range, for fluctuations in radiocarbon age can intersect the calibration curve at several different points.⁹¹ Almost any date within the range is, from a scientific perspective, equally possible.⁹² Recent testing of a very large (53 × 34 cm) parchment manuscript divided between several collections in Russia and Central Asia, for example, produced a 220-year range (775 to 995 CE) at the 95per cent confidence level.⁹³ Radiocarbon analysis of another manuscript, the so-called Samarkand Koran, produced a similar range of 260 years, from 595 to 855 CE.⁹⁴ These ranges are consistently longer than the thirty-three years (657–90) reported for the pages from the manuscript in San'a with the architectural frontispiece.⁹⁵ As Susan Whitfield pointed out in discussing the application of various kinds of scientific testing including radiocarbon analysis to manuscripts from Dunhuang in Central Asia, both the testing and the interpretation of the results is an art as well as a science.⁹⁶ This is not at all to say that such testing should not be carried out on early Koran manuscripts nor that it is without validity, but rather that such testing must be performed with a coherent and standard protocol.

A final point that emerges from the work of Whelan and others is that the kufic style was used virtually exclusively for calligraphing Koran manuscripts (*masahif*). From the thirteen hundred manuscripts or fragments written in kufic, only one or two do not belong to Koran manuscripts.⁹⁷ Kufic is therefore to be distinguished from the round script that was used by scribes since early Islamic times for correspondence and transcribing non-Koranic texts and since the late ninth or early tenth century for copying the Koran (see Chapter 5).

The usual explanation for the difference between the two styles is chronological, with kufic said to have given way to a new style in the tenth century. Whelan, however, proposed a different explanation, suggesting instead that copyists of the Koran worked in different milieux: religious scholars penned Koran manuscripts in kufic on parchment, whereas secretaries wrote in cursive hands on paper. These two types of calligraphers came from different social groups and had different professional interests. Copyists who penned kufic Koran manuscripts were members of the ulema, whereas secretaries were not devout scholars. Copyists, perhaps as a sign of devotion, did not often sign their work.⁹⁸

Since the styles used for transcribing Koran manuscripts might be simultaneous rather than successive, Whelan argued that manuscripts in kufic could have been produced later than the tenth or eleventh century, the time limit usually cited. One example is the so-called Blue Koran (Figure 4.10), one of the most sumptuous Koran manuscripts known.⁹⁹ The text is transcribed on large sheets of parchment, many trimmed, but measuring on average c. 30 × 35 cm.

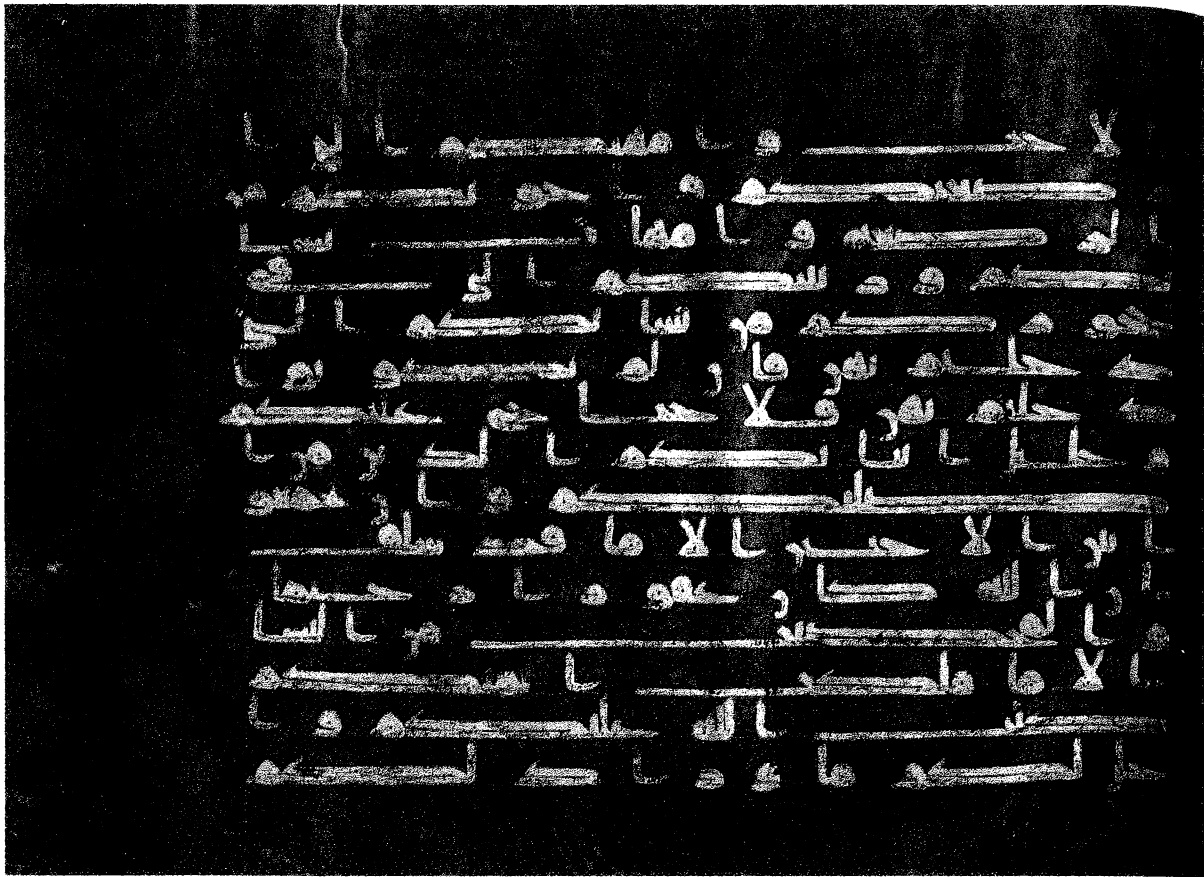


Figure 4.10 Page containing Sura 4:23–4 from a seven-part Koran manuscript on parchment dyed blue with fifteen lines per page.

This is one of the most sumptuous Koran manuscripts ever produced, with gold lettering and silver markings that contrast with the blue parchment. Historical considerations, particularly the idea of a blue-dyed support as an imitation of the Byzantine practice of purple-dyed parchment that was unavailable in Islamic lands, suggest a dating in the mid-tenth century and an attribution to north Africa.

Dyed a deep blue with indigo, the support forms a bold contrast to the writing, which is transcribed in fifteen lines of gold ink outlined in black. Pages are further embellished with occasional pointing in gold along with vocalization, verse markers, and *sura* headings added in silver that has often tarnished, as in the verse marker at the end of line 11.

The expense of materials shows that the Blue Koran was a very special codex, and its singularity has led to singular explanations for it. The earliest, put forward by F. R. Martin in 1912, was that the manuscript had been commissioned by the 'Abbasid caliph al-Ma'mun (r. 813–33) for the tomb of his father, Harun al-Rashid, at Mashhad in north-eastern Iran because blue was the color of mourning.¹⁰⁰ There is, however, little evidence for this fantasy, which may have been created to conceal the way that Martin had acquired the leaves in Istanbul or to add a hint of intrigue and bolster the selling price.

Jonathan Bloom used the evidence of the manuscript itself to argue more persuasively for an attribution to the Maghrib.¹⁰¹ As in most Koran manuscripts transcribed in kufic, verses are counted using the alphanumeric system known as *abjad*, in which each letter of the

alphabet stands for a different numerical value. The letters are arranged in the sequence of older Semitic alphabets, and the word *abjad* an acronym formed from the first four letters – *alif*, *ba*, *jim*, and *dal* (a, b, j, and d). For the sake of pronunciation and memorization, the letters in this system are grouped into pronounceable but meaningless words. The traditional system is *'abjad hawwaz huttiiy sa'fad qarashat thakhhkhadh dazagh*. In the Maghrib, however, another system is used: the fifth, sixth, and eighth groups are arranged differently and the letters grouped *'abajid hawaz hutiiy kalaman sa'fad qurisat thakhudh zaghsh*.¹⁰² This latter system is the one used in the Blue Koran.¹⁰³

On the basis of historical evidence, Bloom then localized the manuscript of the Blue Koran to mid-tenth century Tunisia.¹⁰⁴ The manuscript was there in late medieval times, for it figured as the first item on an inventory of manuscripts in the library of the Great Mosque of Kairouan compiled in 693/1293, where it was described as a Koran manuscript in seven sections contained in an aloeswood case decorated with copper inlaid with gold.¹⁰⁵ Bloom suggested that this sumptuous manuscript had been made in imitation of imperial Byzantine manuscripts, known to have been written in gold on parchment dyed purple with murex. Lacking access to this gastropod, Muslims imitated the color with indigo, producing a harmonious combination used in monumental inscriptions since Umayyad times (Figures 3.5 and 3.7). This probably happened, Bloom concluded, after the Fatimids had received embassies from the Byzantines and begun to imitate Byzantine royal objects, producing such unfamiliar wares as ivory boxes.¹⁰⁶ Examination of the folios from the Blue Koran confirms a later dating. Unlike most kufic Koran manuscripts attributed to the ninth century or earlier, the folios of the Blue Koran are ruled with a dry point.

Checking the *abjad* numbering may provide yet another avenue of localizing these early Koran manuscripts. One example is a well-preserved fragment of 260 folios in the Gulistan Palace Library in Tehran, with the first three parts (Suras 1–3:78), written out with six lines of kufic per page.¹⁰⁷ A stack of three gold balls marks the end of each verse, and a gold rosette with an *abjad* letter marks the end of every ten verses. On folio 251, verse sixty is marked with a *sad*, the letter used in the *maghribi* system rather than the *sin* used in the standard system.¹⁰⁸ Using the *abjad* system to assign the kufic fragment in the Gulistan Palace Library to the Western Islamic lands lends weight to other criteria that might suggest a *maghribi* provenance, such as the arrangement of the folios in ternions, the marking of sevenths (folio 192 is marked as the half of the first seventh), the occasional green dot to indicate connective *alif* (*hamzat al-wasl*), and perhaps even the horizontal format with an even number of lines per page.

Art-historical evidence can also help in assigning a later date to some of these undated fragments, such as an isolated folio from a kufic

Koran manuscript in the Khalili Collection.¹⁰⁹ The medium-sized folio (18 × 25 cm) is inscribed with twelve lines of text. Marks at the end of each line may indicate that some sort of ruling was employed, although it was not the same type of dry point used in the Blue Koran. The script is a compact kufic with some idiosyncratic letters, such as a long *nun* that descends and touches the letters in the line below. What is most distinctive, however, is the heading for *Sura al-Nisa'* (Women, Chapter 4). The verse count is given in the archaic system of numbering with hundreds, units, and tens (*mi'a wa sitta wa saba'in*). It is also written in a distinctive foliated script that calls to mind architectural inscriptions rather than penmanship. Such foliated script could hardly be earlier than the mid-tenth century.¹¹⁰

These other avenues of investigation – ranging from paleography, codicology, vocalization and variant readings, *sura* titles, verse counts, and *abjad* numbering to radiocarbon testing – may give us new information in dating and localizing the large corpus of parchment Koran manuscripts made in early Islamic times. But we must use all these methods coherently and in conjunction with each other, the corroborative approach recently advocated to distinguish authentic documents from Dunhuang from later fakes and forgeries.¹¹¹ Until we obtain and coordinate such information, we must conclude, as Whelan did, that as yet we have no external evidence – no colophon, endowment notice, or other securely datable element – to date any Koran manuscript before the late eighth or early ninth century. Koran manuscripts were definitely made in early Islamic times,¹¹² and some of them may well survive among the leaves already published and known to scholars, but we still do not have convincing means of identifying them as such. Similarly, Koran manuscripts copied on parchment in kufic continued to be made into the tenth century, and possibly the eleventh or twelfth, and we still need to do more work to identify which ones they are.

Notes

1. Adolf Grohmann, 'The Problem of Dating Early Qur'ans,' *Der Islam* 33 (1958): 213–31, discusses several fragments of Koranic text on papyrus, but they are the exception rather than the rule.
2. A few folios have also been reused in bindings. Ursula Dreiholz, 'Some Aspects of Early Islamic Bookbindings from the Great Mosque of Sana'a, Yemen,' in *Scribes et manuscrits du Moyen-Orient*, ed. François Déroche and Francis Richard (Paris, 1997), 15–34, for example, found an old parchment leaf glued to the inside of a small horizontal back cover preserved at Sana'a (C 11). The binding itself is one of the oldest known, and the fragmentary page contained a text written in 'small kufic' and identified as Koranic.

In the West, too, pieces from earlier written documents were often reused, and their serendipitous discovery sometimes provides the earliest examples of a particular genre. When searching through fifteenth-century printed books in the library of the University of California, Los

Angeles, Richard Rouse, 'Roll and Codex: The Transmission of the Works of Reinmar von Zweter,' in *Authentic Witnesses: Approaches to Medieval Texts and Manuscripts*, ed. Mary A. Rouse and Richard H. Rouse (Notre Dame, IN, 1982), 107–23, for example, found two parchment fragments containing the songs of Minnesinger Reinmar von Zweter that had been reused as flyleaves in a copy of St Thomas' *Summae theologiae*. The fragments belonged to a singer's or poet's roll, an ephemeral genre that was usually discarded. They can be dated to the mid-thirteenth century, thereby pre-dating any known manuscripts of Reinmar's songs.

3. *Maṣā'hif san'ā'* (Kuwait, 1985); Hans-Caspar Graf von Bothmer, 'Meisterwerke islamischer Buchkunst: koranische Kalligraphie und Illumination im Handschriftenfund aus der Großen Moschee von Sanaa,' in *Jemen*, ed. Werner Daum (Innsbruck-Frankfurt/Main, 1988), 177–80; Ursula Dreibholz, *Frühe Koranfragmente aus der Grossen Moschee in Sanaa/Early Quran Fragments from the Great Mosque in Sanaa*, Hefte zur Kulturgeschichte des Jemen, 2 (Sanaa, 2003).
4. Nearly three hundred thousand examples, dating mainly from the mid-tenth century to the mid-thirteenth, were discovered at the end of the nineteenth century in a storeroom (known in Hebrew as a *geniza*) of the Palestinian Synagogue in Fustat, or Old Cairo. See, most recently, Jonathan M. Bloom, *Paper before Print: The History and Impact of Paper in the Islamic World* (New Haven, 2001), 74–8. The Cairo Geniza included trousseau lists, commercial documents, and personal letters relating to the Jewish community. The San'a trove, in contrast, was almost exclusively Koranic. Of the fifteen thousand fragments on parchment, fewer than one hundred and fifty belonged to other texts, mainly hadith or other religious works in addition to some medical works and a few ownership documents and letters. Dreibholz, *Quran Fragments*, 21.
5. François Déroche, 'À propos d'une série de manuscrits coraniques anciens,' in *Les Manuscrits du moyen-orient: essais de codicologie et paléographie*, ed. François Déroche (Istanbul/Paris, 1989), 101–11.
6. Some of these were published by Bernhard Moritz, *Arabic palaeography: A Collection of Arabic Texts from the First Century of the Hidjra till the Year 1000* (Cairo, 1905), an album that, like the collection, is relatively inaccessible today. WorldCat lists sixteen copies worldwide.
7. See, for example, François Déroche, *The Abbasid Tradition: Qur'ans of the 8th to the 10th Centuries AD*, ed. Julian Raby, The Nasser D. Khalili Collection of Islamic Art (London, 1992), *Manuel de codicologie des manuscrits en écriture arabe* (Paris, 2000), 70–109, and his article 'Manuscripts of the Qur'ān' in *EQ*, 3:254–75.
8. Khader Salameh, *The Qur'ān Manuscripts in the al-Haram al-Sharif Islamic Museum, Jerusalem* (Reading, 2001). These manuscripts, which came not only from the Dome of the Rock but also from other mosques, madrasas, and shrines in the city, range in date over the last ten centuries (the oldest, no. 5, is a parchment copy attributed in a later hand, clearly erroneously, to 'Ali's grandson, but probably made in the ninth century), in format from single to thirty-volume copies (which the author calls *rab'a*, pl. *rab'at*), and in size from small to huge (a two-volume copy made in the fifteenth century, no. 1, measures over a meter high). They not only tell us about Koranic calligraphy and its collection in Jerusalem, but also help to chart the religious and political history of the city and its major buildings. Two-thirds of the

manuscripts date to the Ottoman period, including four donated by Sultan Sulayman, who restored the Dome of the Rock. Using their endowment deeds, court records, and other historical sources, the museum director and compiler of the splendid new catalogue, Khader Salameh, estimated that the Dome of the Rock, like the Aqsa Mosque, had at least fifty multi-volume copies of the Koran.

9. Some are on display in the new Islamic galleries. The best are illustrated in the catalogue *Gulchīnī az qur'ānhā-yi khattī-yi mūza-yi dawrān-i islāmī* [A Selection of Koran Manuscripts in the Museum of the Islamic Eras] (Tehran, 1375/1997). See also Mahdī Bahramī, *Rāhnamā-yi ganjīnah-yi qur'ān* (Tehran, 1328/1940).
10. Aḥmad Gulchīn-i Ma'ānī, *Rāhnamā-yi ganjīna-yi qur'ān* (Mashhad, 1347/1969); Muḥammad Āṣif Fikrit, *Fihrist-i nusakh-i khattī-yi qur'ānhā-yi mutarajjam* (Mashhad, 1363); Ramaẓān-'alī Shākiri, *Ganj-i hizār sāla-yi kitābkhāna-yi markazī-yi āstān-i quds-i rizavi qabl wa ba'd az inqalāb* (Mashhad, 1367/1989); *Elr*, 'Āstān-e Qods-e Razawī.'
11. Mashhad, Astan-i Quds, no. 6; for references, see Chapter 1, note 26.
12. Charles Melville, 'The Pilgrimage to Mashhad in 1601,' in *Safavid Persia*, vol. 4, ed. Charles Melville, Pembroke Papers (London, 1996), 191–229. Gulchīn-i Ma'ānī, *Rahnama*, jim, gives a list of the Koran manuscripts that 'Abbas endowed to the shrine.
13. Several medieval sources describe the codex penned by 'Uthman that was reportedly kept in the Mosque of Damascus as well as others kept elsewhere in Syria. See Josef W. Meri, *The Cult of Saints among Muslims and Jews in Medieval Syria*, Oxford Oriental Monographs (Oxford, 2002), 114–16. By the twelfth century, four pages of it were reportedly preserved in the Great Mosque of Córdoba, presumably used there to bolster the connection between the Umayyads of Spain and their forebears in Syria. See Jonathan M. Bloom, 'The Revival of Early Islamic Architecture by the Umayyads of Spain,' in *The Medieval Mediterranean: Cross-Cultural Contacts*, ed. Marilyn J. Chiat and Kathryn L. Reyerson (St Cloud, MN, 1988), 40.
The most famous surviving example of an 'Uthmanic' manuscript is the so-called Samarkand Koran (now in the Religious Administration of Muslims in Tashkent). A large-format manuscript, it contains about one-third of the entire text. On the basis of its orthography as seen in the facsimile published in 1905, Arthur Jeffery and A. Mendelsohn, 'The Orthography of the Samarqand Qur'ān Codex,' *Journal of the American Oriental Society* 62 (1942): 175–95, assigned it to early ninth century Iraq. François Déroche, 'Note sur les fragments coraniques anciens de Katta Langar (Ouzbékistan),' in *Patrimoine manuscrit et vie intellectuelle de l'Asie centrale islamique*, ed. Ashirbek Muminov, Francis Richard, and Maria Szuppe (Tashkent and Aix-en-Provence, 1999), 65, thought it earlier, assigning it to the second half of the eighth century. Based on recent radiocarbon testing of other pages that produced a date between 595 and 855 CE at the 95 per cent confidence level, Efim A. Rezvan, 'On the Dating of an "Uthmanic Qur'ān" from St Petersburg,' *Manuscripta Orientalia* 6, no. 3 (September 2000): 19, assigned it to the turn of the eighth to ninth century.
14. See Chapter 2 for details about the types of skin and preparation of the parchment. A few, giant manuscripts (e.g., BN ms. arabe 324; 48 × 53 cm) were made of individual folios, each of which comprised the hide of a single animal.
15. Déroche, 'À propos d'une série de manuscrits coraniques anciens.'

16. The Byzantines followed the same practice. The bifolio used in imperial manuscripts there measured on the order of 41×54 cm. The splendid Bible made at Byzantium c. 940 for the treasurer Leo Skallarios (Vatican ms. Reg. gr. 1), for example, is full-folio size, measuring 41×27 cm. The Trebizond Gospels, made in Armenia in the mid-eleventh century and now in the Congregazione Armenia Mechitarista in Venice (ms. 1925), one of the grandest works produced within the Byzantine sphere of influence, is made up of 633 bifolios and measures 46×37 cm, giving an even larger bifolio size of 46×74 cm. See Helen C. Evans and William D. Wixom, *The Glory of Byzantium: Art and Culture of the Middle Byzantine Era, AD 843–1261*, exhibition catalogue (New York, 1997), nos. 42 and 240.
17. Déroche has done an extraordinary job studying the composition of the quires used in these early manuscripts. See, in particular, François Déroche, 'L'emploi du parchemin dans les manuscrits islamiques: Quelques remarques préliminaires,' in *The Codicology of Islamic Manuscripts: Proceedings of the Second Conference of al-Furqān Islamic Heritage Foundation, 4–5 December 1993*, ed. Yasin Dutton (London, 1995), 17–57.
18. This drawing was prepared for Déroche's fine catalogue of the early fragments in the Khalili Collection: Déroche, *Abbasid Tradition*, fig. 2.
19. The contrast between flesh and hair sides is another peculiarity of manuscripts made in the Islamic lands. In manuscripts made in the West, by contrast, it is often impossible to distinguish the two. See Chapter 2, note 8, and Dreibholz, *Quran Fragments*, 45.
20. Estelle Whelan, 'Writing the Word of God: Some Early Qur'ān Manuscripts and their Milieux, Part I,' *Ars Orientalis* 20 (1990): 115. There are, of course, a few exceptions to this rule. Some of the vertical format pages with slanted script have dry-point rulings on the back of the folio. See, for example, François Déroche, *Les Manuscrits du coran, aux origines de la calligraphie coranique*, Bibliothèque Nationale, Département des Manuscrits, Catalogue des Manuscrits Arabes (Paris, 1983), nos. 1 and 2; Mikhail B. Piotrovsky (gen. ed.), *Heavenly Art, Earthly Beauty* (Amsterdam, 1999), no. 35.
21. The term kufic was already current by the tenth century. The chronicler Ibn al-Nadīm (*The Fihrist of al-Nadīm: A Tenth-Century Survey of Muslim Culture*, ed. and trans. Bayard Dodge [New York and London, 1970], 12), the main textual source for much of our information about books in the early Islamic period, uses the term to designate the script used by a group of Koran copyists in the time of the 'Abbasid caliph al-Mu'tasim (r. 833–42) – Abu Juday, and following him, Ibn Umm Shayban, al-Mashur, Abu Khamira, Ibn Humayra – and in his (that is, Ibn al-Nadīm's) own day Abu'l-Faraj. Only the last name crops up elsewhere in Ibn al-Nadīm's text: the chronicler describes him (p. 85) as a Koran reader and a friend of Ibn Shanabudh, a Baghdadi scholar who was flogged seven times for introducing erroneous readings of the Koran and probably died in prison in 939 (p. 1098). In the following paragraph, Ibn al-Nadīm mentions that manuscripts of the Koran were also transcribed in *muhaqqaq*, *mashq*, and similar scripts.

The term kufic was popular in medieval times. It is used, for example, in a thirteenth-century inventory of manuscripts in the library of the Great Mosque at Qayrawan to refer to a manuscript written in gold on blue (*akhal*) parchment, presumably the famous 'Blue Koran.' For the inventory and its association with this manuscript, see Ibrāhīm Shabbūh, 'Sijill qadīm li-maktaba jāmi' al-qayrawān [An old register of

the library of the Great Mosque of Kairouan], 'Revue de l'Institut des Manuscrits Arabes 2, no. 2 (1956): 339-72; Jonathan M. Bloom, 'Al-Ma'mun's Blue Koran?' *Revue des Études Islamiques* 54 (1986): 61-5; Jonathan M. Bloom, 'The Blue Koran: An Early Fatimid kufic Manuscript from the Maghrib,' in *Les Manuscrits du moyen-orient: essais de codicologie et paléographie*, ed. François Déroche (Istanbul/Paris, 1989), 95-9; E. Voguet, 'L'inventaire des manuscrits de la bibliothèque de la Grande Mosquée de Kairouan (693/1293-4),' *Arabica* 50, no. 4 (2003): 532-44; for a page from the manuscript, see Figure 4.10.

By the later middle period, Persian authors used kufic to refer to an angular script that had one-sixth round strokes and fifth-sixths flat. This description is given, for example, by the calligrapher and commentator on calligraphy Qadi Ahmad, who contrasts it to the completely straight *ma'qili* (said to be named for the Ma'qil Canal near Basra); see Mir Munshī Qummī Qāḍī Aḥmad, *Gulistān-i hunar*, ed. Aḥmad Suhayli-Khānsārī (Tehran, 1352/1974), 12; Qāḍī Aḥmad, *Calligraphers and Painters: A Treatise by Qāḍī Aḥmad, Son of Mir-Munshī* (Circa AH 1015/AD 1606), trans. V. Minorsky, Occasional Papers (Washington, DC, 1959), 53-4. The same two terms are used by many other authors in the prefaces to albums composed at this time; see, for example, Dust Muhammad's preface to the album he prepared for Bahram Mirza in 951/1544 (Wheeler M. Thackston, *Album Prefaces and Other Documents on the History of Calligraphers and Painters*, Studies and Sources in Islamic Art and Architecture, Supplements to Muqarnas [Leiden, 2001], 7). The terms kufic and *ma'qili*, also known as square kufic or *banna'i* (builder's [script]), became standard in Mughal India as well (for their use by Akbar's chronicler Abu'l-Fadl, see Chapter 12).

22. François Déroche, 'Les manuscrits arabes datés du IIIe/IXe siècle,' *Revue des Études Islamiques* 55-7 (1987-89): 343-79.
23. Déroche, *Manuel*, 272-327.
24. In addition to a handful surviving in the Great Mosque of Damascus (Déroche, 'Les manuscrits arabes datés') and elsewhere, two major collections of early bindings have survived in Kairouan and San'a. The library of the Great Mosque of Kairouan in Tunisia preserved a group of some one hundred and fifty examples. Louis Poinssot discovered half of them jumbled in a room to the north of the court that served as a store and dove-cote, and seventy-six more were found in a box in the library there. These bindings have been well known to scholars since the publication of Georges Marçais and Louis Poinssot, *Objets Kairouanais IXe au XIIIe siècle* (Tunis, 1948). The other group of bindings from the early Islamic period was discovered equally fortuitously, but more recently, in 1972, in the Great Mosque at San'a in the Yemen. Along with the extraordinary collection of Koran folios, ninety-five fragments of book covers were found. See Dreibholz, 'Early Islamic Bookbindings.'
25. *Dirāsāt fī tārikh al-khaṭṭ al-'arabī* (Beirut, 1972) See also the volume of essays recently published in his honor, *Essays in Honour of Ṣalāḥ al-Dīn al-Munajjid* (London, 1423/2002).
26. To his first list (Déroche, 'Les manuscrits arabes datés'), Déroche has recently added another Koran manuscript in St Petersburg: see François Déroche, 'Un fragmento coránico datado en el siglo III/IX,' in Γραφειών: *Códices, Manuscritos e Imágenes: Estudios Filológicos e Históricos*, ed. Juan Pedro Monferrer Sala and Manuel Marcos Aldón (Córdoba, 2003), 127-39.

27. François Déroche, 'The Qur'ān of Amāğūr,' *Manuscripts of the Middle East* 5 (1990-1): 59-66; Alain Fouad George, 'The Geometry of the Qur'an of Amajur: A Preliminary Study of Proportion in Early Arabic Calligraphy,' *Muqarnas* 20 (2003): 1-16. In addition to a handful of folios scattered in different collections such as Cambridge University Library (ms. add. 11,116), the bulk of the manuscript, 242 folios including this one, is in the Museum of Turkish and Islamic Art in Istanbul.
28. The sum of the height (13 cm) and width (20 cm) of a folio is thus 33 cm, thereby conforming to Déroche's standard (see above p. 103 and note 15)
29. I reached this estimate by dividing the number of letters in the Koran (321,015), given in the frontispieces to many later manuscripts such as the one penned by Ibn al-Bawwab (see Chapter 5), by the number of letters on a single page in this manuscript (an average of twenty-six, as on the page illustrated here [Figure 4.2]). This division yields 12,840 pages or 6,420 folios, or 214 per volume in a thirty-volume set.
30. To reach this figure, I assumed that the thirty-volume manuscript was comprised of some six thousand bifolios, each measuring 40 × 12 cm (or .048 square meters) and that ten of these bifolios could be cut from a hide measuring 80 × 60 cm, or .48 square meters (the largest parchment to survive from Islamic times, a marriage contract dated 461/1069, measures 85 × 82 cm; see Chapter 2, note 12). This estimate for the number of hides needed to make the Amajur Koran is conservative, for it assumes no cropping at the edges and no blemishes on any skin. Nevertheless, the Amajur Koran was by no means the most largest (by that I mean the biggest consumer of sheep) in its time. Déroche (*EQ*, 'Manuscripts of the Qur'ān,' 3:261) noted that several large Koran manuscripts (e.g., BN, ms. arabe 324) had folios measuring 68 × 53 cm (or .3604 square meters), each of which would have required the hide of a single animal, and that six hundred folios (and therefore sheep) would have been required for these copies.
31. The text between the two notices comprises more than one-third of the Koran, and a single copyist working at this rate would have taken about six months to transcribe the entire text. Déroche, 'Qur'an of Amagur', felt, however, that the two-month interval was too short for transcribing such a large chunk of text and suggested that the two endowment notices, which both fall near illuminated double pages, were not in the hand of the calligrapher, but rather done by an illuminator who was responsible not only for the decoration but also for the line of text in the middle of the illuminated pages. As evidence, Déroche cited the shape of the final *nun* and the *alif*, whose upper shaft bent slightly to the left, features he found different from the script in most of the text but the same as the script used on the illuminated pages. He therefore suggested that the endowment notices were added by the illuminator after he had finished his work when the manuscript was ready for donation to the foundation in Tyre.

From the limited number of published pages, it is impossible to verify Déroche's conclusion. The endowment deed dated Sha'ban (his plate II) is in a sloppier and more crowded hand than the meticulous one used for the text, but copyists typically used a different script for colophons in order to distinguish this mundane information from divine revelation, so the difference may be a matter of choice, not hands. Similarly, the notes added along the top margin saying that the manuscript was endowed by Amajur are written using two different wordings – pages from parts 1 to 7 are inscribed *awqafaha amajur*

- (Amajur caused it to be endowed), whereas all the later folios are inscribed *waqafaha amajur* (Amajur endowed it) – and two different styles (the notes on the two fragments remaining from part 24 are in a more rounded script). Lacking secure evidence to the contrary, it is simpler to assume that the endowment deeds reflect the date of copying and that the copyist and the illuminator were the same person.
32. Most recently in his article 'Manuscripts of the Qur'ān,' *EQ*, 3:256–7.
 33. Al-Nadim, *Fihrist*. Dodge's introduction gives details about Ibn al-Nadim's life; see also *EI*/2, 'Ibn al-Nadim.'
 34. Al-Nadim, *Fihrist*, 6–46.
 35. The text reads *fa-fi alfatihi ta'wijun bi-yamnati al-yadi wa a'la al-asabi' wa-fi shaklihi indija'un yasir*. I have taken my translation from Estelle Whelan's unpublished article, 'The Phantom of *Hijāzī* Script: A Note on Paleographic Method'. Dodge's translation (p. 10) reads 'a turning of the hand to the right and lengthening of the strokes, one form having a slight slant,' but Whelan's interpretation of *a'la al-asabi'* (literally, raising of the fingers) as tall ascenders makes sense. She also notes that the third criterion of slant has sometimes been taken to apply, like the first two, only to the *alifs* in this script, but that the masculine singular pronoun *hu* attached to *shakl* (form) is clearly parallel to the one attached to *alifat* and refers to the same pair.
 36. Amari's notes were first published by H. Derenbourg, 'Bibliographie primitive du Coran par Michele Amari,' in *Centenario della nascita di M. Amari*, ed. E. Basta (Palermo, 1910), 15–22, cited in Whelan, 'Phantom,' n. 13. Amari, apparently unaware of Silvestre de Sacy's citation and translation of the complete passage from a manuscript of the *Fihrist*, based his identification of Meccan script on the abridged version of Ibn al-Nadim given by the seventeenth-century chronicler Hajji Khalifa.
 37. Al-Nadim, *Fihrist*, 11.
 38. François Déroche, 'Collections de manuscrits anciens du Coran à Istanbul. Rapport préliminaire,' in *Études médiévales et patrimoine turc*, ed. Janine Sourdel-Thomine (Paris, 1983), 35–6; *Abbasid Tradition*, 27–33; 'Les manuscrits du Coran en caractères Higāzī,' *Quinterni* 1 (n.d.): 2–19; and 'Manuscripts of the Qur'ān,' *EQ*, 3:256–7, where he suggests that the name 'hijazi' does not imply that these manuscripts were transcribed in the Hijaz.
 39. Whelan, 'Phantom' For further details on this article, see Chapter 3, note 17.
 40. Dublin, CBL, ms. 3315, fol. 3v; al-Nadim, *Fihrist*, 10, example 2.
 41. The culmination of this approach can be seen in the catalogue for an exhibition held at the Islamic Art Gallery of the King Faisal Center for Research and Islamic Studies, *Arabic Calligraphy in Manuscripts* (Riyadh, 1406/1986), cited in François Déroche, 'Les études de paléographie des écritures livresques arabes: quelques observations,' *Al-Qanṭara* 19 (1998): n. 12, which lists 137 names, mixing ones found in sources with modern ones, most of which are not identifiable.
 42. Déroche, *Abbasid Tradition*.
 43. Similarly, the three folios in 'hijazi' belonged to two groups, Hijazi I and IV.
 44. Déroche, *Manuscripts du coran I*; Déroche, *Abbasid Tradition*.
 45. His latest article on the subject is François Déroche, 'New Evidence about Umayyad Book Hands,' in *Essays in Honour of Ṣalāḥ al-Dīn al-Munajjid* (London, 1423/2002), 611–42. See also his comments in

François Déroche, *Le Livre manuscrit arabe: préludes à une histoire* (Paris, 2004), 16–18. For Déroche, the three essential characteristics of *hijazi* are shafts that bend to the right, a lower hook on *alif*, and lengthened strokes. The text in *hijazi* Koran manuscripts is written in a *scriptio defectiva*, and individual manuscripts (or parts thereof) show a wide diversity of hands, as well as different numbers of lines per page. Unlike other early fragments, none of these pages in *hijazi* script bears an attribution to ‘Uthman or ‘Ali. The difficulty with the *hijazi* group is the enormous variety with a very limited number of specimens. In his 2002 article, for example, Déroche enumerated six different styles.

46. Whelan, ‘Writing the Word of God.’
47. Déroche, ‘Les études de paléographie,’ 372 and n. 31, countered that Whelan had not explained her choices of the type manuscripts and that the one representing her Group 2 was unique. His arguments do not seem to me significant, as she used established provenance and representativeness of a broad juxtaposition as sufficient reasons. His argument that Group 1 dates to the ninth century and Group 2 is earlier may well be valid alongside hers of different locales.
48. Dublin, CBL, 1407; Paris, BN, 350a; Istanbul, TKS, EH 26 and Aya Sophia Library; Copenhagen, Royal Library XL and XLII; Washington, DC, FGA 37.6; etc. A fragment in Wolfenbüttel (Herzog August Bibliothek Aug. 2°) had been the gift of the noted Orientalist Jacobus Golius (Jacob Gool) in 1655 or 1656, and another in the Bodleian (March 178) was also in Golius’ possession as early as 1656.
49. Dublin, CBL, ms. no. 1404; Arthur J. Arberry, *The Koran Illuminated: A Handlist of Korans in the Chester Beatty Library* (Dublin, 1967), no. 31. Whelan’s close examination showed that the manuscript was copied on bifolios produced by folding the skins down the middle. She estimated that the thirty-volume manuscript comprised nearly three thousand folios, with four gatherings of quaternions per section (*juz*).
50. The note was added in 1140/1727 by Amir Muhammad Jurbaji, member of a prominent family of merchants. Whelan, ‘Writing the Word of God,’ 119 and n. 65, identifies the later owner.
51. The manuscript is divided among at least five collections: Dublin, CBL, 1421; New York, Pierpont Morgan Library, M712; Istanbul, TKS, EH 16 and TIEM, ms. 47; and Damascus, National Museum A.338.
52. San’a, Dar al-Makhtutat ms. 20–33; see *Masa’if san’a*, 45; Hans-Caspar Graf von Bothmer, ‘Architekturbilder im Koran: Eine Prachthandschrift der Umayyadenzeit aus dem Yemen,’ *Bruckmanns Pantheon* 45 (1987): 4–20; Bothmer, ‘Meisterwerke,’ fig. 11; Dreibholz, *Quran Fragments*, 38–9. Déroche (‘Manuscripts of the Qur’an,’ *EQ*, 3:259) estimated that this large manuscript (51 × 47 cm) once contained about 520 folios; the manuscript is also one of the very few to have preserved the opening page with the Fatiha (Sura 1); see *EQ*, vol. 2, pl. 1; Dreibholz, *Quran Fragments*, 43.
53. Other pages do not have such markers; see for example, fol. 20b, with Sura 7:104–15, illustrated in Whelan, ‘Writing the Word of God,’ fig. 21.
54. Before her death, she generously shared the opening three pages of the draft with me.
55. A feature also found in the copper inscriptions from the Dome of the Rock.
56. On this point, see also François Déroche, ‘La paléographie des écritures livresques dans le domaine arabe,’ *Gazette du Livre Médiéval* 28 (Spring 1996): 1–8.

57. Al-Suli, *Adab al-kuttāb*, 50 and 57, cited in Nabia Abbott, *Studies in Arabic Literary Papyri*, University of Chicago, Oriental Institute Publications (Chicago and London, 1972), 17 and n. 3.
58. Ibn Durustwayh, *Kitāb al-kuttāb*, ed. Louis Cheikhō (Beirut, 1927).
59. Franz Rosenthal, 'Abū Haiyān al-Tawhīdī on Penmanship,' *Arts Islamica* 13-14 (1948): 1-30.
60. See above, note 17.
61. Déroche, *Manuscripts du coran I*, no. 2; one page is illustrated in his article 'Manuscripts of the Qur'ān,' *EQ*, 3, pl. I.
62. Déroche, 'Umayyad Book Hands,' 628.
63. Tehran, National Museum, no. 4293; Bahramī, *Rahnama*, no. 2; *Gulchīnī*, 22-3. This fragment came from Ardabil. The 77-folio text comprises the twenty-ninth part (*juz'*) of the Koran (Suras 67-77) and ends with a spurious colophon that attributes the work, both writing and illumination, to 'Alī ibn Abī Talīb, in the year 7/628-9. Bahramī dated the manuscript to the tenth century. The quires are arranged in the standard way, with two flesh sides in the center and two hair sides on the outside, but they are quaternions, rather than the usual quinions.
64. Paola Orsatti, 'Le manuscrit islamique: caractéristiques matérielles et typologie,' in *Ancient and Medieval Book Materials and Techniques*, ed. Marilena Maniaci and Paola F. Munafò, Studi e Testi (Vatican City, 1993), 297; Déroche, *Manuel*, 86-91. These quinions generally followed Gregory's rule so that open double pages have facing sides of the same condition (that is, hair faces hair, or flesh faces flesh).
65. *Masa' hif san'a*, 19-23; Bothmer, 'Architekturbilder.'
66. Such a descending system was also used to count verses. A small, horizontal manuscript in the Chester Beatty Library (ms. 1416), for example, has a gold rosette with 2:280 numbered as *mi'atayn wa thamanun* (folio 22a).
67. Alternatively, this archaic usage could have survived in one area, but not in another. Verse numberings using the archaic descending system were added, for example, to a 'vertical' format manuscript, most of which is in St Petersburg (E20), for which see Efim Rezvan, 'The Qur'ān and its World: VI. Emergence of the Canon: The Struggle for Uniformity,' *Manuscripta Orientalia* 4, no. 2 (June 1998): 13-54; Déroche, 'Katta Langar,' Efim A. Rezvan, 'Yet Another "Uthmānic Qur'ān" (On the History of Manuscript E20 from the St Petersburg Branch of the Institute of Oriental Studies),' *Manuscripta Orientalia* 6, no. 1 (March 2000): 49-68; Efim A. Rezvan, 'Uthmanic Qur'an' On the basis of stylistic and radiocarbon analysis (for which, see below), Rezvan dated this manuscript to the last quarter of the eighth century; Déroche assigned it to his group B Ib. The titles with their verse counts seem to be latter additions, which Rezvan estimated could have been done fifty or one hundred years after the original copying. The descending system of hundreds, tens, and units was also used in the Ibn al-Bawwab Koran made at Baghdad in 391/1000-1 (see Chapter 5 and Figure 5.8). Such a descending order is standard in Persian, an Indo-European language.
68. Grohmann, 'Early Qur'ans.'
69. E.g., Jonathan Bloom and Sheila Blair, *Islamic Arts, Art and Ideas* (London, 1997), 76.
70. *San'a*, Dar al-makhtutat, Inv. Nr. 01.27.1; *Masa' hif san'a*, no. 4; Bothmer, 'Meisterwerke,' pl. 1. With its shafts that bend to the right, lower hook on *alif*, and lengthened strokes, it meets the criteria given by Déroche for *hijazi* script.

71. A. S. Atiya, *The Arabic Manuscripts of Mount Sinai* (Baltimore, 1955); see also Chapter 5. Similarly, in the Kudov Psalter (Evans and Wixom, *Glory of Byzantium*, no. 52), the original ninth century uncial was replaced by twelfth century minuscule.
72. Arthur Jeffery, *Materials for the History of the Text of the Qur'an* (Leiden, 1937).
73. On this point, see also Efim Rezvan, 'Qur'an VI.'
74. 'Red Dots, Green Dots, Yellow Dots and Blue: Some Reflections on the Vocalisation of Early Qur'anic Manuscripts – Part I,' *Journal of Qur'anic Studies* 1, no. 1 (1999): 115–40; 'Red Dots, Green Dots, Yellow Dots and Blue: Some Reflections on the Vocalisation of Early Qur'anic Manuscripts (Part II),' *Journal of Qur'anic Studies* 2, no. 1 (2000): 1–24. His work was based on manuscripts in the collection of the Bodleian Library, Oxford, which owns folios from twenty-one different codices now bound as part of ten different volumes. He also considered folios from other collections in the British Isles and in other publications.
75. These reasons include *imāla* (the fronting of the Arabic vowel *a* so that it is pronounced more like an *e*), *ya'at al-idafa* (pronouncing the first-person singular possessive suffix with a *fatha*, i.e., *-iya*, instead of long *i*), and *idgham* (the assimilation of certain short vowels between consonants, as in *khalqa-kum* instead of *khalaqa-kum*). He also found a single gold dot, used to indicate a third reading.
76. Paris, BN, ms. arabe 328a; Yasin Dutton, 'An Early Muṣḥaf According to the Reading of Ibn 'Āmir,' *Journal of Qur'anic Studies* 3, no. 1 (2001): 71–89.
77. Adrian Brockett, 'Aspects of the Physical Transmission of the Qur'an in nineteenth century Sudan. Script, Decoration, Binding and Paper,' *Manuscripts of the Middle East* 2 (1987): 45–67.
78. One good example, brought to my attention just as this book was going to press, is the article by Hans-Caspar Graf von Bothmer, Karl-Heinz Ohlig, and Gerd-Rüdiger Puin, 'Neue Wege der Koranforschung,' *Magazin Forschung, Universität des Saarlandes* 1 (1999): 33–46.
79. Cited in Dutton, 'Red Dots I,' 118–20.
80. Kuwait, Dar al-athar al-Islamiyya LNS2 CA(a); Marilyn Jenkins (ed.), *Islamic Art in the Kuwait National Museum: The al-Sabah Collection* (London, 1983), no. 19; for other pages from the same manuscript, see Déroche, *Abbasid Tradition*, no. 58.
81. Tunis, National Library, Rutbi no. 52; Martin Lings and Yasin Safadi, *The Qur'an* (London, 1976), no. 24.
82. Dublin, CBL, 1411; Arberry, *Koran Illuminated*, no. 10.
83. Many illustrated in black and white in F. R. Martin, *The Miniature Painting and Painters of Persia, India and Turkey from the 8th to the 18th Century* (London, 1971), pls. 233–6.
84. Arberry, *Koran Illuminated*, pl. 18.
85. D. S. Rice, *The Unique Ibn al-Bawwāb Manuscript in the Chester Beatty Library* (Dublin, 1955), 29 and n. 2. One might also compare the ornament to that added in the margin of the Palermo Koran (Figure 5.4), a manuscript that was unknown to Rice.
86. W. Wright, *A Grammar of the Arabic Language Translated from the German of Caspari and Edited with Numerous Additions and Corrections*, 3rd edn, rev. W. Robertson Smith and M. J. de Goeje (Cambridge, 1971), 9–10. The use of an extra long *alif* was one of the criteria that Florence Day used to localize a group known as the 'Baghdad silks' to Spain; see Florence Day, 'The Inscription of the Boston "Baghdad" Silk: A Note on Method in Epigraphy,' *Ars Orientalis* 1 (1954): 191–4.

87. On this topic, see also Efim Rezvan, 'Qur'an VI,' esp. Table 8.
88. Marmaduke Pickthall, *The Meaning of the Glorious Koran: An Explanatory Translation* (London, 1930).
89. P. E. Damon, et al., 'Radiocarbon Dating of the Shroud of Turin,' *Nature* 337 (16 February 1989): 611-15; A. J. Timothy Jull and Douglas J. Donahue, 'Radiocarbon Dating with Accelerators: Methods and Application to Textiles,' *Orientations* 21, no. 6 (June 1990): 75-9. The shroud of Turin was subjected to a battery of scientific tests including radiography, microscopic examination, hematology, pollen analysis, and digital imaging. Such 'scientific testing' on the shroud was necessary in part because earlier 'scientific' tests – photographs made in 1898 and 1931 – had brought out the outline of a figure, taken by promoters of the shroud as as 'scientific proof' for the authenticity of the relic as the burial cloth of Christ. See John Beldon Scott, *Architecture for the Shroud: Relic and Ritual in Turin* (Chicago and London, 2003), 301 and n. 10.
90. Sheila S. Blair, Jonathan M. Bloom, and Anne E. Wardwell, 'Reevaluating the Date of the "Buyid" Silks by Epigraphic and Radiocarbon Analysis,' *Ars Orientalis* 22 (1992): 1-42. When doing radiocarbon testing, furthermore, it is useful to have the work repeated in several places, for different laboratories can produce consistently different dates. When testing both the shroud of Turin and the Buyid silks, for example, the laboratory at Oxford produced slightly older dates than those produced in the laboratories at Zurich and Tucson.
91. The amount of radiocarbon in a sample can be related to a radiocarbon age, which is usually quoted in 'years before present' (BP), with the present conventionally defined as CE 1950 when the testing and explosion of atom bombs significantly changed the radioactive carbon content of the atmosphere. If the amount of radiocarbon produced in the atmosphere were always the same, then one could use the calculated 'radiocarbon age' as the true age of the sample. However, fluctuations in the amounts of cosmic rays and other climatic and artificial effects cause the total amount of carbon dioxide in the atmosphere to change slightly. As a result, it is necessary to calibrate the radiocarbon age against the radiocarbon contents of a standard of known age. The standard typically used for this calibration is tree rings, which can be dated accurately, and a curve of radiocarbon against known-age tree rings has been established from the present to c. 7200 BCE. The calibrated ages are typically given in two forms, with either one or two standard deviations (*sigma*, or §). An error of one standard deviation (1§) means that if many measurements were made on a collection of identical samples, 68 per cent of the results would fall within the range defined by the quoted plus-or-minus standard deviation. This range is often referred to as a 68 per cent 'confidence interval.' Two standard deviations define a 95 per cent confidence interval. Thus 95 per cent of all measurements on identical samples would fall within a range of plus or minus 2§. In other words, it is fairly likely (68 per cent probable) that the date of an individual specimen falls within the range of 1§ and nearly certain (95 per cent probable) that it falls within the wider range of 2§. When giving ranges, it is also essential to cite the level of probability.
92. In the case of the Persian silks, the ranges established for the medieval pieces were on average one hundred and fifty years at one standard deviation and over two hundred years at two standard deviations.
93. The main part of the manuscript, 81 folios containing text from

- 44 *suras*, is in the Institute of Oriental Studies, St Petersburg (ms. E20); other pages are in Tashkent, Bukhara, and the shrine of the 'Ishqiyya Sufi brotherhood in Katta Langar, a remote site in Qasqa-Darya province 70 km south of Shahr-i Sabz. See Efim Rezvan, 'Qur'an VI.'; Déroche, 'Katta Langar.'; Efim A. Rezvan, 'Another 'Uthmanic Qur'an.'; Efim A. Rezvan, 'Uthmanic Qur'an.' On the basis of stylistic and radiocarbon analysis, Rezvan dated the manuscript to the last quarter of the eighth century, Déroche to his group B Ib. To muddy the waters, the manuscript has been corrected and titles added, using the 'archaic' system of numbering.
94. Efim A. Rezvan, 'Uthmanic Qur'an,' 19, n. 4, citing the results from pages from the same manuscript sold at Christies on 20 October 1992 (lots 225–225a) and on 19 October 1993 (lots 29–30).
 95. Bothmer, Ohlig, and Puin, 'Koranforschung,' 45, gives these dates, though neither the testing facility nor the standard deviations (or confidence level) are given. An Umayyad date is often suggested for this manuscript, as in Déroche's article on 'Manuscripts of the Qur'an,' *EQ*, 3259.
 96. Susan Whitfield (ed.), *Dunhuang Manuscript Forgeries*, British Library Studies in Conservation Science (London, 2002).
 97. One exception is a fragmentary genealogical work now divided between the Bibliothèque Nationale (Arabe 2047, 13 folios) and the Staatsbibliothek, Berlin (Ms. Or. 379, two folios). Although sometimes identified as *Jamharat al-nasab*, its exact name is unclear. Another exception is a copy of the Acts of the Apostles transcribed by the monk Musa al-Rahib, probably in Palestine in the ninth century; one quire has been removed from the manuscript in the Monastery of St Catherine on Mt Sinai and is now in the Bibliothèque Nationale (ms. arabe 6725; Marie-Geneviève Guesdon and Annie Vernay-Nouri (eds), *L'Art du livre arabe: du manuscrit au livre d'artiste* [Paris, 2001], no. 13).
- Déroche, 'Les manuscrits arabes datés' showed that most manuscripts with other texts copied in kufic script cannot be considered authentic. These other manuscripts include a copy of al-Asma'i's *Ta'rikh muluk al-'arab al-awwal* in (BN, Arabe 6726; for which see François Déroche, 'À propos du manuscrit 'Arabe 6726,' Bibliothèque Nationale, Paris [Al-Asma'i, *Ta'rikh mulūk al-'arab al-awwalī*], *Revue des Études Islamiques* 58 [1990]: 135–88) and one of Hunayn ibn Ishaq's *Adab al-falasifa* (Tehran University Library, no. 2165).
98. Although no surviving Koran manuscript penned in kufic bears an authentic signature, medieval sources occasionally mention a signed colophon. Al-Dani (cited in Dutton, 'Red Dots I,' 119–20) reports, for example, that he saw a Koran manuscript from an old mosque (*mushaf jami' 'atiq*) with a colophon saying that it was written by Mughira ibn Mina in Rajab 71/October–November 728 at the beginning of the caliphate of Hisham. This may have been the exception rather than the rule, for the sources regularly refer to the hand of a famous scholar, copyist, or calligrapher simply as 'well-known' (*ma'ruf*); see Abbott, *Studies*, 12.
 99. The manuscript is dispersed; this page, for example, is in Los Angeles (LACMA, M86.196a), for which see their splendid on-line display, with this page at <http://collectionsonline.lacma.org>.
 100. Martin, *Miniature Painting*, 106 and 141, n. 83.
 101. Bloom, 'Al-Ma'mun's Blue Koran?'; Jonathan M. Bloom, 'The Early Fatimid Blue Koran Manuscript,' *Graeco-Arabica* 4 (1991): 171–8.

102. Sheila S. Blair, *Islamic Inscriptions* (Edinburgh, 1998), 220, with further references. Astrolabes show that the two systems of *abjad* numbering were already in operation in medieval times. A tenth-century astrolabe made in Iraq by Ahmad ibn Khalif and now in the Bibliothèque Nationale uses the eastern system of alphanumerics, whereas an Andalusian example made in 472/1079 in the Germanisches Museum, Nuremberg, uses the Western system. Both are illustrated in D. and J. Sourdel, *La Civilisation de l'Islam Classique* (Paris, 1968), nos. 203 and 205, respectively.
103. Folio 1b in the Chester Beatty Library, Dublin (ms. 1405), for example, shows verse sixty of Sura 2 (al-Baqara, The Cow) marked with a *sad*.
104. A Spanish provenance has also been suggested (*The Qur'an and Calligraphy: A Selection of Fine Manuscript Material*, Bernard Quaritch Catalogue 1213 [London, 1995], 7–15), but is not convincing as it is based mainly on negative evidence.
105. See above, note 21.
106. The only ivory assigned to Fatimid North Africa, for example, is a painted ivory box made for the caliph al-Mu'izz at al-Mansuriyya, his capital in North Africa until 972. See *The Arts of Islam*, exhibition catalogue, Hayward Gallery (London, 1976), no. 145. Its technique, which makes little of the medium's qualities such as translucence and luster, shows that the Fatimids were producing an unfamiliar item. See further Sheila S. Blair, 'What the Inscriptions Tell us: Text and Message on the Ivories from al-Andalus,' *Journal of the David Collection* 2 (2005): fig. 5.
107. Gulistan Palace Library, no. 1052; Badrī Ātābay, *Fihrist-i qur'ānā-yi khatī-yi kitābkhāna-yi saltānatī* (Tehran, 1351/1981), no. 110. The fragment was already prized in medieval times, when someone added a colophon on folio 260 in a different ink with the signature of 'Ali ibn Abi Talib.
108. The Maghribi system was also used in other Koran manuscripts made in the region, such as a copy transcribed at Palermo in 372/982–83 (Figure 5.4).
109. London, Khalili Collection, KFQ70a. Déroche, *Abbasid Tradition*, no. 68.
110. Adolf Grohmann, 'The Origin and Early Development of Floriated Kūfic,' *Ars Orientalis* 2 (1957): 183–214.
111. Susan Whitfield, 'Introduction,' in *Dunhuang Manuscript Forgeries*, ed. Susan Whitfield (London, 2002), 1–21.
112. Just how early also remains a matter of debate. Dealers are naturally interested in making their wares as early as possible, as in the case of a parchment palimpsest recently published by Sam Fogg, *Islamic Calligraphy* (London, 2003), no. 1, and attributed to the time of the Four Orthodox caliphs as early as the 630s. Textual sources such as al-Nadim, *Fihrist*, 11, however, tell us that Khalid ibn Abi'l-Hayyaj was the first to write copies of the Koran, and he worked at the beginning of the eighth century.

Part III: The Pre-eminence of Round Scripts in the Early Middle Period

The Adoption of Round Scripts

VIRTUALLY ALL KORAN manuscripts made in the ninth century or earlier were calligraphed in some variant of a rectilinear script. During the tenth and possibly even the eleventh century, copyists continued to transcribe Koran manuscripts in this style, but the major innovation of the middle period was the refinement of round scripts and their transformation from chancery hands into artistic styles suitable for calligraphing the Koran and other prestigious texts. This canonization of round scripts was part of major social changes that produced an international Islamic civilization in which power and culture were decentralized to many courts that used not only Arabic but also Persian.¹

Naming these new round scripts is a problem. The sources give many names for specific scripts, but as François Déroche pointed out, it is still (and perhaps forever will be) impossible to link these with the many manuscripts at hand, especially since most are fragmentary and incompletely catalogued.² To categorize a first group of round scripts, Déroche therefore coined the rubric New 'Abbasid Style or New Style (abbreviated NS) as a complement to his Old or Early 'Abbasid Style, his replacement for kufic. Déroche proposed a summary division of his New Style into two subgroups with numerical headings: NS I, monumental varieties in which the contrast between thick and thin was accentuated, and NS III, which incorporated more fluid lines and more rounded forms.³ Both styles, he hinted, might have been adopted from chancery scripts. Since he was concerned with the relationship of the New Style with what he considered the older angular script used for copying the Koran, he labeled the monumental style NS I, although he noted that it was introduced later than NS III for copying the Koran.⁴

Other scholars have used a plethora of different names for Déroche's NS. Many of the names linked with this distinctive script that has a marked contrast between thick and thin strokes are geographic. The script is often associated with manuscripts transcribed in the eastern Islamic lands, so it is sometimes called eastern kufic, Iranian kufic, Persian kufic, or eastern Persian kufic.⁵ At the same time, other scholars noted that the script was also used in manuscripts copied in the Maghrib, such as the Nurse's Koran made for the

nurse of the Zirid amir al-Mu'izz ibn Badis in 410/1020 (Figure 5.5), so they also called it Western kufic.⁶

These geographical names suggest that this distinctive script is derived from kufic, and other names like late or flowering kufic, bent kufic, broken kufic, and semi-kufic make this connection more explicit.⁷ In Arabic the common name for this script is *kufi murabba'* (square kufic) as distinct from *kufi mudawwar* (round kufic), the script that had been used in the earliest Koran manuscripts. Some Western scholars also noticed the connection between this distinctive script and the round script used by copyists and chose a combination name. In describing the manuscripts in the Bibliothèque Nationale, Michele Amari, for example, used *naskhi kufic*, a name repeated by Nabia Abbott as *kufic-neshki*.⁸ Another name for this distinctive script, popular with nineteenth-century Orientalists, is Qarmathian or Qarmathian kufic, though the reasons for this choice are not entirely clear.⁹

Dissatisfied with the connection to kufic, other scholars coined new names for this script that reflected its originality. Eric Schroeder proposed *badi'* (literally, new or marvellous), for the renowned copyist Ibn Muqla was reported in later sources to have invented *al-khatt al-badi'*.¹⁰ Schroeder took this phrase for the name of a new script, but Mojtaba Minovi was quick to point out that it was merely a generic expression for a new style of writing, and Schroeder thereupon retracted his suggestion.¹¹ S. M. Stern called this script rhomboid.¹² Some Iranian scholars call the script *piramuz* (or *framuz*), identifying it with the script mentioned by the tenth-century chronicler Ibn al-Nadim as invented by the Persians.¹³

Almost all of these names for this script are based on the assumption that Islamic calligraphy developed linearly from the angular kufic through this distinctive script to a fully rounded one. In other words, by the choice of names, it was tacitly (and sometimes openly) assumed that copyists who had first transcribed Koran manuscripts in kufic gradually switched to this distinctive script with its contrast between thick and thin before moving to round scripts. Estelle Whelan proposed using a different name – broken cursive – based on a different assumption, namely that this script was an independent stylization from basic rounded handwriting.¹⁴ Whelan opted for the name broken cursive as a strictly visual or descriptive one, free from the political connotations implicit in a name such as New 'Abbasid Style and more evocative than New Style (NS). The name broken cursive has the further advantage that it clearly indicates the origin of this script in the regular round hand of the chancery scribe.¹⁵ I have followed her usage as I believe her reasoning is correct.

This chapter, then, outlines the development of the new round style. From all available evidence, copyists in early Islamic times used a round script for transcribing non-Koranic texts. Déroche calls it a bookish script (*écriture livresque*).¹⁶ This book script was adopted occasionally, if awkwardly, for transcribing the Koran. Copyists

gradually stylized it, developing a mannered variant, here called broken cursive.¹⁷ Secretaries then transformed this mannered script into a more flowing and elegant round style. The copyist Ibn Muqla is generally credited with regularizing broken cursive into a well-proportioned script (*al-khatt al-mansub*), and his follower Ibn al-Bawwab in turn is recognized for adding grace to the round script used for regular transcription.

Round book script

Scribes who penned official letters and correspondence in early Islamic times had used a round script, for it was faster and therefore more efficient than the stately kufic reserved for monumental inscriptions and Koran manuscripts. Legibility was essential for correspondence, and so letters were grouped in words, and important or possibly ambiguous words like proper names were pointed. Copyists in early Islamic times also used a round hand to transcribe codices containing texts other than the Koran. The second oldest dated example to survive on paper is a treatise on unusual terms in the Traditions of the Prophet entitled *Gharib al-Hadith*, dated Dhu'l-Qa'da 252/November–December 866 (Figure 5.1).¹⁸ The text was composed by the grammarian Abu 'Ubayd ibn al-Qasim ibn Sallam (d. 838),¹⁹ and this fragmentary medium-sized (28 × 17 cm) copy was transcribed a generation or so after the author's death. It is written on strong, brown paper in black ink in a round calligraphic hand. The copyist wanted to make his hand look more formal than the casual round script used in some correspondence, and so he adopted some of the conventions used in kufic Koran manuscripts. For example, he tried to adhere to a grid, with angular connectors between letters, though there is no trace of a ruling and the text is written freehand. To underscore the rectilinear aspect, he also extended such letters as *sad* and *kaf* and used long extenders, notably in the word *qala*, to signal the beginning of a new section of text (Figure 5.1a).

Despite these attempts at regularization and monumentality, the script is clearly rounded. There is a slight bend to *alif*, which begins with a serif (Arabic *tarwis*) on the left and ends in a spur in its final form. The bowls of many letters are rounded, as is the loop in *'ayn* and *ha'*. Similarly, the upper strokes of *ta'*/*za'* and *kaf* have a hook at the top. Initial *'ayn* and final *qaf* are particularly large, whereas *dal* has shrunk from the large square form used in kufic Koran manuscripts to a small bar set at a 45° angle to the base stroke.

The renowned Orientalist M. J. de Goeje, who studied the Leiden manuscript extensively, noted several distinctive features of the orthography.²⁰ The copyist sometimes pointed the letter *qaf* with two dots above, the standard convention in modern times, but also (and often exclusively) used one dot below. He also put a dot beneath *ra'*, *sad*, and *ta'* to distinguish them from *za'*, *dad*, and *za'* (Figure 5.1a), and used three dots, sometimes in a straight line, beneath *sin* to

Figure 5.1 *Page from a copy of Gharib al-Hadith copied, perhaps at Baghdad, in Dhu'l-Qa'da 252/ November–December 866.*

The manuscript is the second-oldest known work in Arabic copied on paper. It exemplifies the the cursive book script used in 'Abbasid times, possibly called *warraqi*. As opposed to early Koran manuscripts, the scribe of this one was intent on legibility and therefore carefully pointed letters and spaced words.

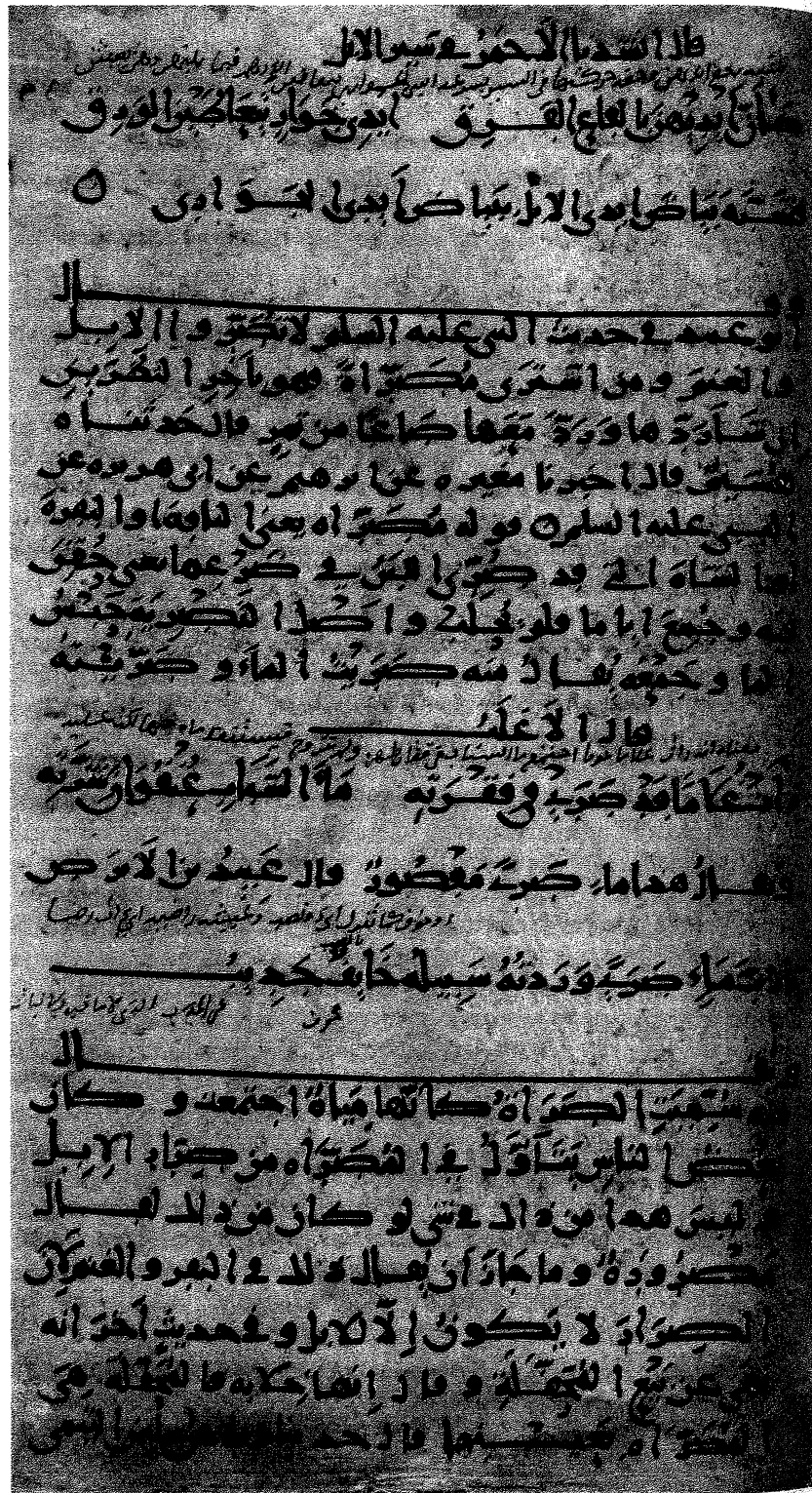


Figure 5.1a

distinguish it from *shin*. Similarly, he put a small 'ayn or *ha*' beneath the letter to distinguish it from pointed forms such as *ghayn*, *kha*', or *jim*. Such a technique of distinguishing unpointed letters (*muhmala*) from their pointed homographs (*mu'jama*) is called *ihmal*. By pointing the letters, the copyist was trying to avoid ambiguities and make the text as readable as possible. For the same reason, he grouped many of his letters by words and broke lines at the end of words. Unlike Koran codices in kufic script that were designed for recitation, this was a text meant to be read.

The round script used to copy the Leiden manuscript in 252/866 was relatively common in the ninth century for copying non-Koranic texts. Déroche's list of forty dated Arabic manuscripts transcribed in the ninth century includes fourteen Muslim texts on history, Tradition, and the like and twelve Arabic-Christian texts.²¹ Several of the latter are preserved in the Monastery of St Catherine at Mt Sinai, including a copy of the Epistles of St Paul and the Acts of the Apostles dated 253/867, a complete copy of the Four Gospels dated 284/897, and the so-called Codex Arabicus, a hagiographica with eighteen miscellaneous treatises on the lives of the saints, the early martyrdoms, and possibly the oldest Arabic translation of the Book of Job.²² Datable to the late eighth or early ninth century, this last manuscript is unique in being a palimpsest with five texts (two in Arabic, one in Greek, and two in Syriac), of which the earliest may date back to the fifth century.²³ Despite the wide range in quality, the scripts used for these twenty-six non-Koranic codices shows a remarkably homogeneous style, with the same letter shapes used throughout.

Both Déroche and Whelan characterized the identifying features of this book script, especially when compared to the kufic used for early Koran manuscripts.²⁴ In this round style there is relatively little spacing between letter groups. Hence the pages look crowded. The strokes vary considerably in thickness, and ascenders on tall letters are diagonal or curving. Final *alif* has a small vertical spur at the bottom, and a similar loop or hook is added to the ends of other letters, such as the top of *alif* or *lam* and the opening of initial 'ayn. *Dal* is relatively small in proportion to other letters, especially in relation to the *dal* in kufic, which is often as large as *kaf*. Ligatures are angular, as are looped letters. The body of *mim* and the head of *fa'*/*qaf*, for example, are often diamond-shaped. Preceding letters are usually joined to the base stroke of *jim* and its partners. As Whelan pointed out, many of these features are also characteristic of broken cursive, the new style that came to prominence in the tenth century for copying the Koran.

From the ninth century this round script was adopted for transcribing the Koran. The earliest surviving example (Figure 5.2) is a tiny (12 × 9 cm) manuscript copied in vertical (portrait) format on parchment and now dispersed among several collections.²⁵ A note in Persian on one of the thirty sections (CBL 1417d) says that Ahmad

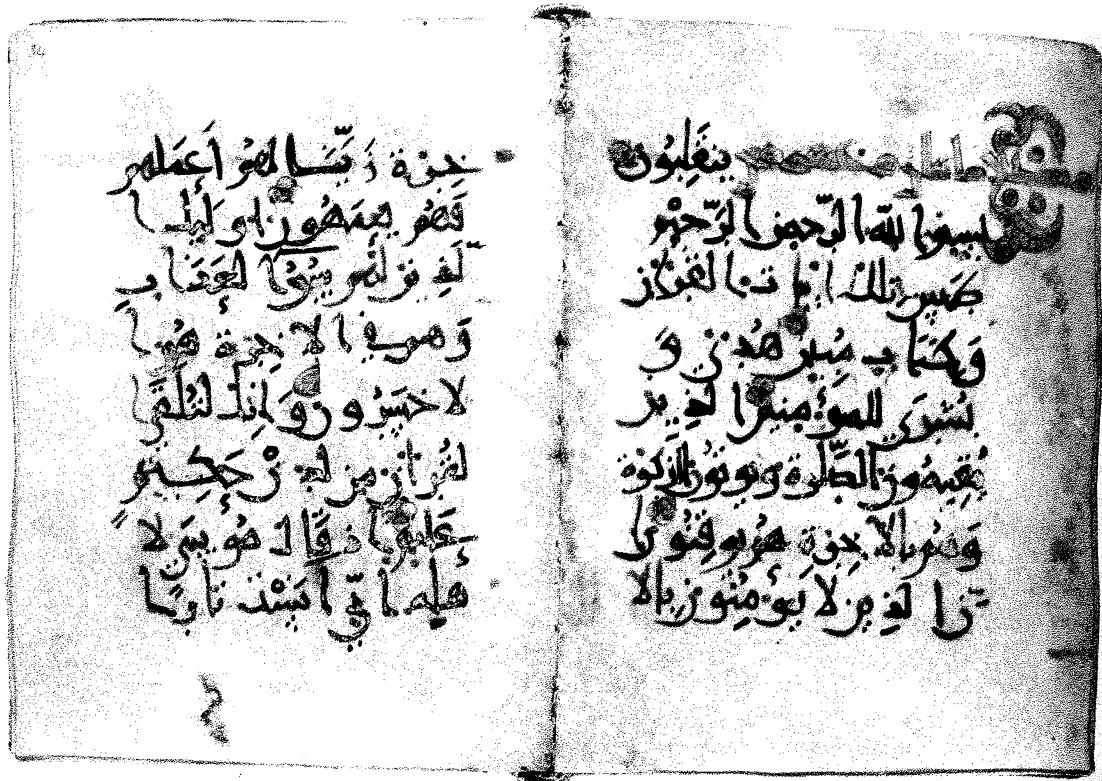


Figure 5.2 Double page containing the last word of Sura 26 and Sura 27:1-7 (the opening of juz' 19) from a dispersed Koran manuscript copied on parchment with eight lines per page.

A note in Persian says that the manuscript was corrected in 292/905, giving a *terminus ad quem* for the manuscript. The date makes it the first surviving Koran manuscript penned in a round book hand, and the use of Persian in the note suggests that it might have been transcribed in eastern Iran.

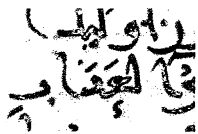


Figure 5.2a

ibn Abu'l-Qasim al-Khayqani corrected (*durust bi-kard*) this Koran manuscript (*jami'*) in Sha'ban 292/June 905. The use of Persian for the corrector's note links the manuscript with the eastern Islamic lands, and the date provides a *terminus ad quem* for its production. Although earlier scholars had put this manuscript in the category of broken cursive, Whelan correctly pointed out it was actually written in a round script.²⁶

The script shows most of the features characteristic of round book script: little spacing between letter groups, variation in the thickness of strokes, diagonal or curving ascenders, a spur at the bottom of final *alif* and the end of other letters, diagonal *dal*, and angular ligatures and looped forms for letters like *mim* and *fa'/qaf*. Many of these features are visible in the word *'l-'adhabi* (Figure 5.2a). The text is fully pointed and vocalized in black after the regular fashion of early manuscripts in round book scripts, though it is possible that these black markings may have been added later. The pointing of the text shares all the characteristic features used in the copy of *Gharib al-Hadith* (Figure 5.1): *qaf* with either two dots above or one below; a dot below *ra'*, *sad*, and *ha'*; three dots below *sin*, and a small S-shaped letter to mark unpointed letters like *ha'* and *'ayn* (Figure 5.2a) as well as to mark *hamza* as in *lil-mu'minina* in the fifth line of the right page.

This early Koran manuscript in round script shares some features with early kufic copies. In addition to the regular system of pointing, the codex in round script is vocalized with the traditional Koranic system of red dots, used, for example, in the Amajur Koran (Figure 4.2). The copyist also broke lines in the middle of words. On the left page illustrated here, for example, he ended four lines with the initial *alif* of the word that continues on the next line. He did so because he knew that the reader was reciting a text that he had already committed to memory. In doing so, the copyist also created a pattern of curved lines along the left edge of the written area. Sometimes he carried this practice to extremes, even dividing a two-letter word such as *inna* between the last two lines of the right page.

Several features of format and decoration connect this Koran manuscript in round script with the kufic codices in Whelan's Group 1 (Figure 4.4) and confirm her suggested localization of that set of manuscripts to the eastern Islamic lands. Like those manuscripts, the text in this small copy is divided into verses, each one marked with a gold rosette and each five marked with a gold *ha'*. Chapter divisions, typically giving the name of the next chapter and the verse count, are also written in gold, as is the large palmette extending into the right margin.²⁷

The rubric on the right page of this double page (Figure 5.2) is peculiar and shows the copyist's unfamiliarity with transcribing the Koran. The text in regular, dark-brown ink contains the last word of Surat al-Shu'ara' (26) and the opening verses of Surat al-Naml (27). The gold rubric, however, contains the verse count of the preceding *sura* (227 verses). When writing the chapter division for the previous chapter (folio 11b), the copyist had made a mistake: instead of writing Surat al-Shu'ara' with 227 verses, the copyist had skipped a chapter and erroneously written Surat al-Naml with 95 verses, the name and verse count of the twenty-seventh chapter. When he got to the end of the chapter on this folio, he apparently realized his mistake, and instead of repeating the information in the correct place, he simply gave the verse count of the preceding *sura*.

The way of writing out the verse count is equally awkward. The copyist apparently started to write out the numbers of the verse count in the unusual sequence beginning with hundreds and working down to decades and units. He seems to have inscribed the first two numbers, two hundred and twenty (*mi'atayn wa 'ishrun*), but ran out of room and had to squeeze the last word with the units digit in the margin. By doing so, he took up part of the space for the palmette, which he then had to divide into two wings that encircle the word for the units digit, *saba'* (seven). The script he used for the heading, especially the word *'ishrun*, resembles that used for the heading in the typical Group 1 manuscript (Figure 4.4). Note, however, the angular bend in the *'ayn*, a hint of the stylized broken cursive script that would come to the fore in the tenth century.

That the copyist of CBL 1417 was experimenting with new ways

of transcribing the Koran is clear from another manuscript in this distinctive hand.²⁸ It too is written in dark-brown ink on parchment, but in the horizontal (landscape) format. It is also much larger, with folios measuring 13.5×20 cm, the same size as those in the Amajur Koran (Figure 4.2). The script, however, is distinct.

Because of the corrector's note in Persian, the manuscript corrected by Ahmad al-Khayqani in 292/905 and its mate in a similar style can be connected with Iran, and contemporary coins, a distinctly conservative medium, show that a round script was accepted for official purposes in Iran and Central Asia at the same time it was adopted for transcribing the Koran. On coins from the eastern Islamic lands, the governor's name, for example, was added in round script to the standard 'Abbasid coin with angular legends.²⁹ Round traits also show up slightly later in monumental inscriptions in Iran.³⁰ Iran, however, was not the only place where copyists experimented with round scripts for copying the Koran: a small (page: 9.5×13 cm) bifolio copied in Misr in the year 325/936-7 shows that this style was also adopted, perhaps only occasionally, in Egypt.³¹

These Koran manuscripts copied in round scripts show that the late ninth and early tenth centuries were a time of experimentation in transcribing the scripture. In a few ways these manuscripts are traditional. They are parchment codices, whereas copyists in the ninth century had already begun to adopt paper for non-Koranic texts such as the treatise on Traditions (Figure 5.1). Like kufic copies of the Koran (e.g., Figure 4.2), these manuscripts are written in dark-brown ink that often degrades or fades. The copyists also broke words between lines, as they did in kufic Koran manuscripts. But these manuscripts in round script also show many new features that distinguish them from the kufic ones discussed in Chapter 4. Their small size suggests that many were personal copies, unlike the larger kufic Korans made for recitation or display in mosques.³² These Koran codices in round scripts are also signed by correctors or copyists, at least one of whom gives his genealogy back three generations. In contrast, all of the kufic Korans discussed in Chapter 4 are unsigned; the only names associated with them are those of the patrons who endowed them to pious foundations. As Whelan pointed out, these attributes suggest that Koran manuscripts in round scripts were made in a milieu different from the one(s) where kufic Koran manuscripts were produced.³³

Despite copyists' attempts to adapt round scripts into suitable vehicles in which to transcribe God's word, we must conclude that ultimately they were not very successful. Whelan labeled the round script used for CBL 1417 (Figure 5.2) and its mate 'rather unattractive.' The lines are wiggly. The spacing is irregular. These copies lack the grandeur of kufic Koran codices and the neatness of later ones in round scripts. Their unappealing appearance may have been one of the reasons that many other copyists chose to transform the regular round script into the new style known as broken cursive, a style emi-

nently suited for transcribing beautiful copies of the sacred text and other important works.

The canonization of broken cursive

Broken cursive came to the fore in the tenth century. We know this from two fine manuscripts dated in the third quarter of that century. The first is an autograph copy of Muhammad ibn 'Abd al-Jabbar al-Niffari's mystical reflections, *Mawaqif*, dated 344/955–6.³⁴ The second is a Koran manuscript (Figure 5.3) penned by 'Ali ibn Shadhan al-Razi al-Bayyi' in 361/972.³⁵ The latter is a landmark in many ways.³⁶ It was copied on paper and is thus our first surviving copy of the Koran on that material, which had been used at least a century earlier for non-Koranic texts (Figure 5.1). This Koran codex also includes a double-page frontispiece giving details about recension and verse count. The inclusion of these details reflects the contemporary concern with establishing the correct version of the Koran, and such pages of front matter became common among Koran manuscripts transcribed in the eastern Islamic lands in medieval times.

Several features of the paleography in these two manuscripts in broken cursive are noteworthy, especially when compared to the kufic style used in early Koran manuscripts.³⁷ The letters in broken cursive are set closely together, with little space between groups, notably in the Koran manuscript whose text appears crowded in comparison to the spaciousness of the kufic codices. As opposed to the rigidly rectilinear character of the kufic style, broken cursive is markedly diagonal. The bodies, tails, and upper strokes of many letters are pitched at a 45° angle to the ruled baseline, and the bodies of looped letters are triangular. Letters are sometimes connected by a notch or V that descends below the flat baseline. Final *alif* ends in a point, and it and many other ascenders have a small triangular serif added at the top left. Strokes vary in thickness. All in all, broken cursive is heavily stylized: note, for example, the final *ya'* that bumps backwards under the other letters in *bi' l-huda* like little wheels on a railroad car and then extends out into the right margin beyond the third line of the Koranic text (Figure 5.3a). This is a self-conscious style that represents the efforts of a secretary trying to formalize his regular round script and turn it into a vehicle worthy of Koran manuscripts and fair copies of other prestigious texts.

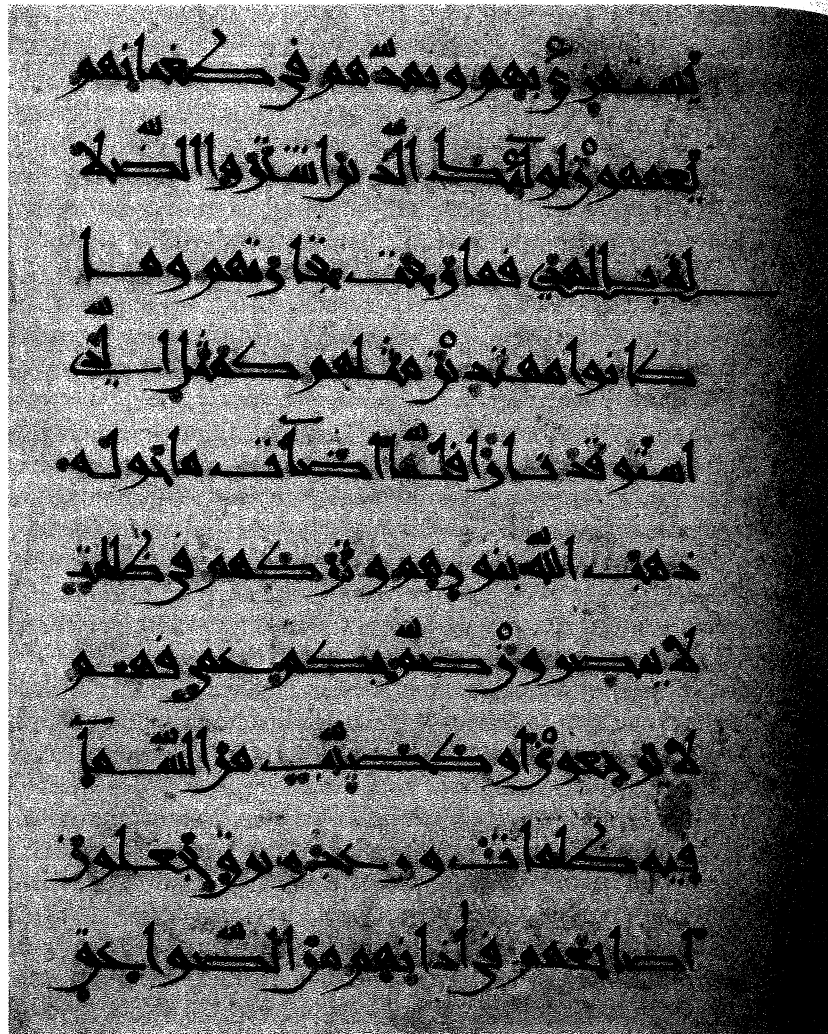
Like Koran manuscripts in round script, manuscripts in broken cursive are often signed, and the copyists' names connect this distinctive script with the eastern Islamic lands and show what kinds of people used it. Al-Niffari (d. 965) was a mystic from Niffar (ancient Nippur) in Iraq who was interested in the mystical symbolism of letters.³⁸ 'Ali ibn Shadhan al-Razi was a copyist and transmitter of hadith whose *nisba* connects him to the city of Rayy in central Iran.³⁹ In addition to the Koran manuscript (Figure 5.3), he also left a copy of al-Sirafi's treatise on the Basran school of grammarians transcribed



Figure 5.3a

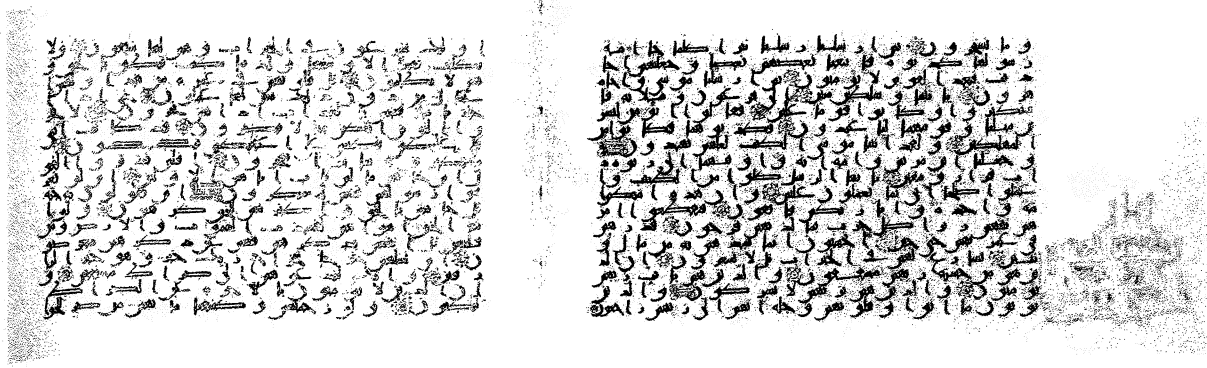
Figure 5.3 Page containing
Sura 2:15–19 from a Koran
manuscript with ten lines per
page copied by 'Ali ibn
Shadhan al-Razi al-Bayyi' in
361/972.

This manuscript is a landmark
in two ways: it is the earliest
surviving copy of the Koran
transcribed on paper and the
earliest surviving copy in
broken cursive. The individual
letters are angular and
markedly diagonal.



sixteen years later in the same distinctive script.⁴⁰ Signatures and endowment notices in other Koran manuscripts in broken cursive, several preserved in the shrine library at Mashhad, confirm the connection of this script to the eastern Islamic lands.⁴¹ So do dated codices of other texts.⁴²

These manuscripts show that broken cursive was well established by the second half of the tenth century. They are too polished to have been the first ever written in broken cursive, and other evidence shows that this script had been used since the beginning of the century. Traces of this style are already apparent in the brief endowment notes added to kufic Koran manuscripts from Whelan's Group 1.⁴³ The one added at the top of the recto on folios from the Koran manuscript endowed by Amajur (Figure 4.2), perhaps penned when the text was repaired in 314/926–7, attempts to imitate the kufic script used for the



text, but shows traces of roundness. At the beginning of the tenth century, copyists of Koran manuscripts were already trying to grapple with the problem of regulating rectilinear and round scripts.

Inscriptions in several other media also document the use of broken cursive in the eastern Islamic lands from the late ninth or early tenth century.⁴⁴ One of the most distinctive is *tiraz*, textiles inscribed with the ruler's name.⁴⁵ *Tiraz* made of *mulham*, a type of fabric with silk warps and cotton wefts, were a specialty of the city of Merv (now in Turkmenistan), and inscriptions on pieces woven there in the late ninth century show experiments with various features of broken cursive, such as rising tails, triangular endings to the extenders, and triangular bodies of letters such as medial *fa'* and *'ayn*.⁴⁶ We should not be surprised to find the same script used in *tiraz* inscriptions and manuscripts, for the texts for *tiraz* inscriptions were drawn up in the chancery. A similar style of script can also be seen on contemporary ceramics, particularly the slip-painted wares associated with Nishapur in Khurasan and Afrasiyab (old Samarqand) in Transoxiana.⁴⁷ Broken cursive was thus not only an official but also a popular script in north-eastern Iran in the late ninth and tenth centuries.

Probably adopted first in the east for copying the Koran and other prestigious texts, broken cursive quickly spread throughout the Islamic lands, as attested by a series of codices. The earliest manuscript known from the Maghrib, a copy of Abu Mus'ab ibn Abi Bakr al-Zuhri's treatise on religious law, *al-Mukhtasar*, transcribed by Husayn ibn Yusuf for the neo-Umayyad caliph al-Hakam in Sha'ban 359/June–July 970, is written in broken cursive.⁴⁸ More impressive is a dispersed Koran codex (Figure 5.4) transcribed at Palermo in 372/982–3.⁴⁹ Like many manuscripts made in the Maghrib, the Palermo Koran is copied on parchment, which remained the favored support there for a longer time than it did in the east. The difference between the hair and flesh sides is clearly visible in this double page, where the ink adheres better to the hair side on the right. The seventeen lines of text are penned in black ink in *scriptio defectiva*, in which long *alif* is often omitted and added in red ink. The letters are not pointed, but some have distinctive shapes. Note particularly the

Figure 5.4 Double page containing Sura 23:43–75 from a parchment Koran manuscript with seventeen lines per page copied at Madinat Siqilliyya (i.e., Palermo) in 372/982–3.

This manuscript shows that that the style of broken cursive quickly became popular throughout the Islamic lands, including the Maghrib. Gold rosettes mark the end of every verse, gold heart-shapes the end of every five verses, and gold quadrangles the end of every ten verses. Verse 60, at the bottom of the right-hand page is marked with a *sad*, the *abjad* system used in the Islamic west.



Figure 5.4a



Figure 5.4b



Figure 5.4c

angular bowl-shaped tails to many letters, especially *mim*, *nun*, and *waw*. Medial *fa'* and *'ayn* are diamond-shaped, and final *alif* ends with a spur or point at the bottom (Figure 5.4a). The upper strokes of *ha'* and *kaf* are diagonal, and letters are connected along a flat baseline with a V or notch. *Kaf* and *sad* are elongated and set above the baseline in patterns of parallel bars when incorporated into longer words, as in *tankisuna*, the last word of the seventh line on the left page (Figure 5.4b). The vocalization is distinct as well. Red dots indicate vowels, a yellow dot disjunctive *hamza*, and blue dots connective *hamza*. A red semi-circle open at the bottom indicates *sukun*.

In addition to *sura* titles in gold, the Palermo Koran has individual verses marked with a gold rosette and groups of five verses with a gold *ha'*. Both of these markers are well-known types, but the gold looped quadrangle marking ten verses is more distinctive. Inscribed inside or above it is a small black letter indicating the verse count using the alphanumeric (*abjad*) system followed in the Maghrib and used in the Blue Koran (Figure 4.10).⁵⁰ Thus, the quadrangle near the bottom left of the right page of the Palermo Koran (Figure 5.4c) has a *sad* to indicate sixty, rather than the *sin* used in the eastern system.

The Palermo Koran also has many distinctive marginal markers painted in reserve within polychrome decoration, mainly red and green. These markers indicate not only the standard divisions into sixtieths (*ahzab*) and thirtieths (*ajza'*), but also tenths, ninths, sevenths, and fifths. The right-hand page illustrated here, for example, bears a marginal marker saying, somewhat unusually, that this is the first half of the seventh ninth and the beginning of the fifth seventh.

The text of the Palermo Koran is also distinct. It follows the reading of the Madinan Nafi' (d. 785), traditionally cited as the first of the seven canonical readings of the Koranic text, as transmitted by his student Warsh (d. 812). Warsh's transmission (*riwaya*) became standard in the Maghrib in the ninth century.⁵¹ The manuscript reflects a traditional theological position, for the palmette on the frontispiece contains the statement that the Koran is the word of God and was not created (*wa laysa bi'l-makhluq*). This was a sharp rebuke to the Mu'tazilites, whose views about the createdness of the Koran had split the Muslim community in the previous century. Clearly, this controversy still occupied the minds of many in the Western Islamic lands in the tenth century.⁵²

Altogether, then, many features – from parchment support to text and frontispiece, script, vocalization, division into various parts, and *abjad* numbering system – all support the statement given in the signed frontispiece that this manuscript was made in the Maghrib. More importantly, they confirm the multi-pronged approach necessary to localize early Koran manuscripts.

The most famous Koran manuscript transcribed in broken cursive in the Maghrib (Figure 5.5) is the Nurse's Koran, so-called because two notes in a contracted round hand report that Fatima, the former nurse (*al-hadina*) of the Zirid prince al-Mu'izz ibn Badis, endowed it

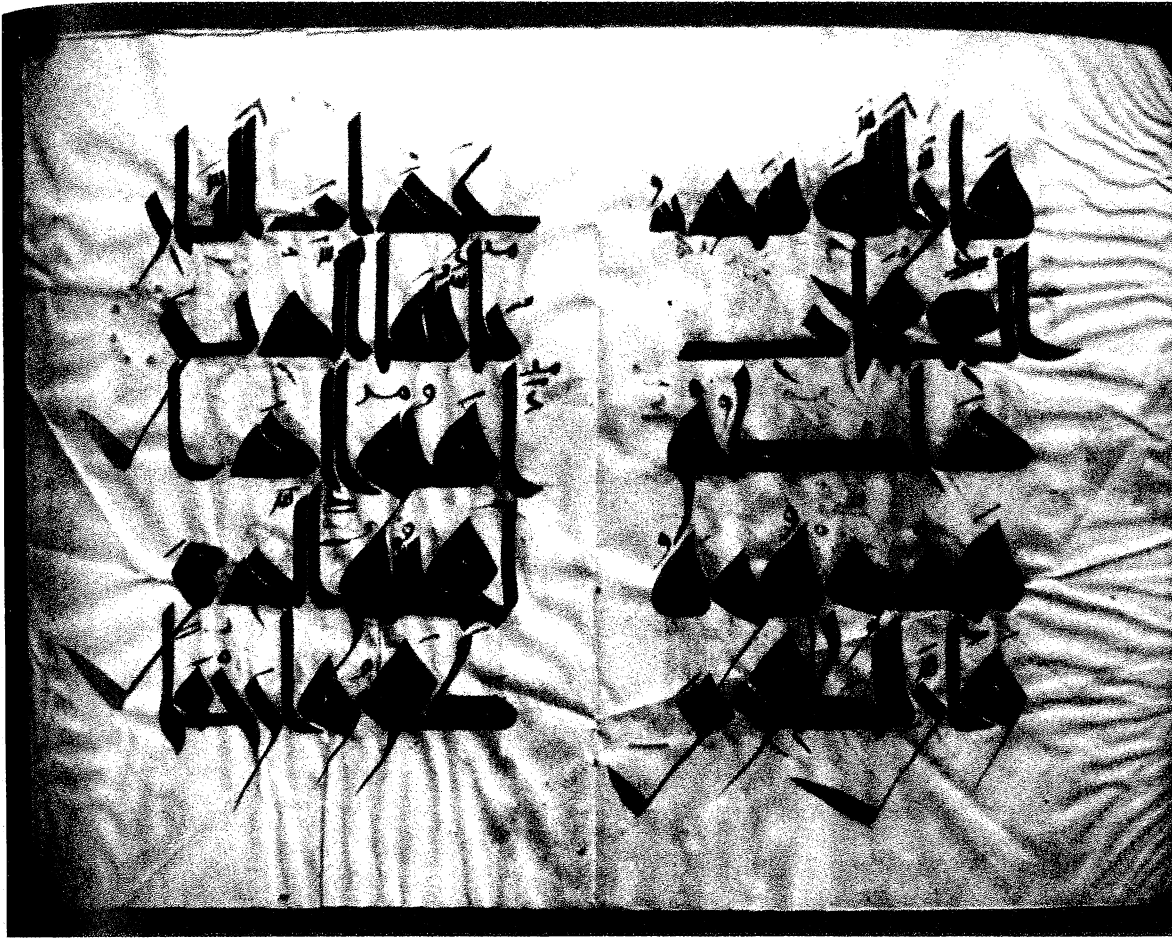


Figure 5.5 Double page containing Sura 8:13–14 from a parchment Koran manuscript with five lines per page copied and illuminated by 'Ali ibn Ahmad al-warraq (the bookseller or copyist).

This famous manuscript is known as the Nurse's Koran because it bears a notice saying that the nurse (*al-hadina*) of the Zirid prince al-Mu'izz ibn Badis endowed it to the Great Mosque of Kairouan in Ramadan 410/January 1020. The colophon states that 'Ali ibn Ahmad *al-warraq* was responsible for its entire production, from transcription to binding. The script is an exaggerated example of broken cursive in which the contrast between thick and thin strokes is extreme.

to the Great Mosque of Kairouan in Ramadan 410/January 1020 and that that 'Ali ibn Ahmad *al-warraq* (the bookseller or copyist) wrote (*kataba*), vowelized (*shakala*), marked (*rasama*), gilded (*dhahhaba*), and bound (*jallada*) this Koran manuscript (*mushaf*) for the exalted nurse under the supervision of Durra, the female secretary (*al-katiba*).⁵³ The text is copied in brown ink on very large (45 × 30 cm) parchment folios in a vertical format with five lines of broken cursive per page. The text is not pointed, but vowels are marked in red, *sukun* and *shadda* in blue, and *hamza* and *madda* in light green.

The broken cursive used for the Nurse's Koran is remarkable for its

mannerism. Note, for example, the extreme contrast between the thick strokes of most letters and the thin ones used for tails and descenders. This contrast is particularly striking in final *nun*, used twice in the bottom line of the right page and twice at the end of the second and fourth lines of the left page. The round bowl of *nun* has been transformed into a diagonal hair connected at right angles to a thick blade so that the letter looks like a hockey stick or an upsidedown pennant. Other pages show equally stylized features. The tail of final *ya*, for example, sometimes reverses back under the word with bumps, the same kind of final *ya* that 'Ali ibn Shadhan had used in his copy of the Koran transcribed some fifty years earlier (Figure 5.3a).⁵⁴

In the Maghrib broken cursive was not limited to Koran manuscripts, but used also for Arab-Christian manuscripts, such as a bilingual Greek-Arab copy of the Gospels that once belonged to the Church of the Holy Sepulchre in Jerusalem.⁵⁵ Nevertheless, its use there was sporadic, and the style was particularly popular in Iran and the eastern Islamic lands, to judge from the many surviving copies of the Koran and other texts transcribed there. Colophons in Koran manuscripts mention such cities as Isfahan⁵⁶ and Rayy.⁵⁷ In other cases, the copyist's *nisba* connects the manuscript to Iran and the east. Such *nisbas* include al-Saffar,⁵⁸ al-Rudhbari,⁵⁹ and al-Balkhi.⁶⁰

Broken cursive was used in Iran and adjacent areas during this period for a series of Koran manuscripts. The typical copy is medium-sized, on the order of 20 × 17 cm, with a compact script and many lines per page (up to twenty-five). Verses are separated by gold rosettes; groups of five are marked with a large *ha*, the alphanumeric (*abjad*) number for five, and groups of ten with a gold circle, with roundels in the margin reiterating this last piece of information. *Sura* titles are given in gold or white on gold, typically with a palmette extending into the margin. The basmala is often decorated and extended, and knotted or interlaced letters are also typical. Al-Rudhbari, for example, transformed the typical diamond-shaped *mim* in *al-rahman* into a knot and braided the horizontal strokes of the *ta* in the heading for *Sura Ta-Ha* (20).⁶¹

These Koran manuscripts in broken cursive share several textual features with the one copied by 'Ali ibn Shadhan al-Razi al-Bayyī in 361/972 (Figure 5.3). Most of them use the new system of orthography and vocalization. The large round dots used in kufic Korans were reduced in size or eliminated, and new markings introduced such as strokes for *fatha* and *kasra*, *waw* for *damma*, and a circle for *sukun*. This is the system still used today. Most of these small Koran manuscripts also have extra illuminated pages detailing the particular reading of the Koran they contain and the number of verses in the text. Both the small size and the detailed markings and numberings show that these Koran codices in broken cursive were intended for a different audience than the large-format ones in kufic: personal reading and

study rather than oral recitation by scholars who had already committed the text to memory.

Broken cursive and Ibn Muqla

The style of broken cursive used in these copies of the Koran and other texts is often associated with the star calligrapher Abu 'Ali Muhammad ibn 'Ali, known as Ibn Muqla.⁶² Born in Baghdad in 885, he became a secretary in the 'Abbasid administration and served as vizier three times between 928 and 936. With the economic and financial crisis under the caliph al-Radi (r. 934–40), Ibn Muqla was deposed, his possessions confiscated, and his hand amputated. He died, neglected, in prison on 10 Shawwal 328/20 July 940.

Despite his ignominious end, Ibn Muqla was revered for his calligraphy. The chronicler Ibn al-Nadim, writing some fifty years after Ibn Muqla's death, mentions him several times in the *Fihrist*. The best known occurs in the opening chapter on language and calligraphy.⁶³ There, Ibn al-Nadim lists Ibn Muqla as one of three viziers and secretaries in office in the early tenth century who wrote in black ink (*midad*). Ibn al-Nadim continues that Muhammad's brother Hasan wrote in brown ink (*hibr*), adding that the like of these two brothers had not been known in the past or even as late as his own time (the late tenth century). Ibn al-Nadim also notes that both wrote according to the calligraphy of their grandfather Muqla, whose real name was 'Ali ibn al-Hasan ibn 'Abdallah. Later in the section on government officials who wrote books, Ibn al-Nadim adds that he had read something written in Ibn Muqla's hand. Ibn al-Nadim transcribed the four-page account according to the order and wording used by the author and included it in his treatise.⁶⁴ By the end of the tenth century when Ibn al-Nadim was writing, it seems that Ibn Muqla's distinctive hand was already recognizable.⁶⁵

We get more secure information about Ibn Muqla and his hand from the small treatise on calligraphy by the philosopher, man of letters, and professional copyist, Abu Hayyan al-Tawhidi (d. 1023), who wrote a generation after Ibn al-Nadim.⁶⁶ Abu Hayyan reports that he had attended a salon crowded with copyists and penmen, each of whom revealed his own secret advice about calligraphy. Abu Hayyan's short epistle contains ninety-five such pieces of advice, all presumably heard first-hand by the author.

Abu Hayyan opens with four different authorities describing the reed pen (*qalam*). The first three are anonymous; the fourth is Ibn Muqla, who is described as the noble vizier and expert penman/secretary (*katib*). Ibn Muqla's advice is to lengthen the nib (*jilfa*), make it good, and trim the point obliquely to the right, for the point determines the handwriting. His advice is generic, and it is anachronistic to imagine that these texts will serve as how-to manuals explaining the art of calligraphy to outsiders.

The metaphoric nature of the written sources is confirmed by the next passage describing what an expert penman should do. Abu Hayyan does not specify whether this long passage also records the words of Ibn Muqla, but since all other reports begin by citing the authority and since no new authority is mentioned here, we can logically ascribe it to him.⁶⁷ According to the heading, a penman needs seven things, though the passage actually enumerates ten qualifications of good handwriting, each designated by a rhyming verbal noun (*masdar*), which is then explained. The ten basic principles of writing are: (1) (plain) through *tahqiq* (precision), thereby giving the individual letters distinct shapes; (2) *tahdiq* (making eyeballs), leaving space in the middle of round letters; (3) *tahwiq* (encircling), rounding the front, middle and tail of *waw*, *fa'*, and similar letters; (4) *takhriq* (piercing), keeping the loops of *ha'*, *'ayn* and similar letters open; (5) *ta'riq* (causing to take root?; distillation), lengthening final *nun*, *ya'*, and similar letters in such words as *min* or *fi* as if spun on a single loom; (6) *tashqiq* (splitting), enveloping (perhaps elongating?) *sad*, *kaf*, and *ha'* for proportion and equilibrium; (7) *tanmiq* (embellishing), writing all letters neatly; (8) *tawfiq* (arranging suitably), keeping the lines straight; (9) *tadqiq* (exactness), making the tails of the letters with broad flowing strokes written with the edge of the reed pen; and (10) *tafriq* (division), keeping the letters separate so that they do not encroach upon each other. The characteristics define a balanced rounded script with open letters and extended tails written with the edge of the pen.

Abu Hayyan mentions Ibn Muqla three other times in his short treatise. All three references underscore the vizier's calligraphic skills. In section 15, for example, the secretary Abu 'Abdallah al-Zanji reports that the best handwriting was the one used by his colleagues in Iran. When Abu Hayyan inquired about Ibn Muqla's handwriting, al-Zanji replied that Ibn Muqla was a prophet in the field of handwriting; it was poured upon his hand, even as it was revealed to the bees to make their honey cells hexagonal. In this passage al-Zanji is referring to Koran 16:68, in which God is said to have taught the secrets of nature, such as showing the bee how to build its hive.

Within a century of his death, then, Ibn Muqla was famed for his distinctive hand. His reputation only increased in later times. The thirteenth-century biographer Ibn Khallikan, for example, credits Ibn Muqla with the new writing or the writing of present times, and the seventeenth-century encyclopedist Hajji Khalifa calls this writing *al-khatt al-badi'* (the marvellous script).⁶⁸ Since later scripts were round, later scholars wrongly inferred that Ibn Muqla had invented round scripts.

This new style was later canonized as *al-khatt al-mansub*, an expression that Nabia Abbott took to mean proportioned writing.⁶⁹ Using later authors as a guide, notably al-Qalqashandi (d. 1418), a secretary in the Mamluk chancery and author of the voluminous encyclopedia entitled *Subh al-a'sha* (Dawn for the Night-blind), and the

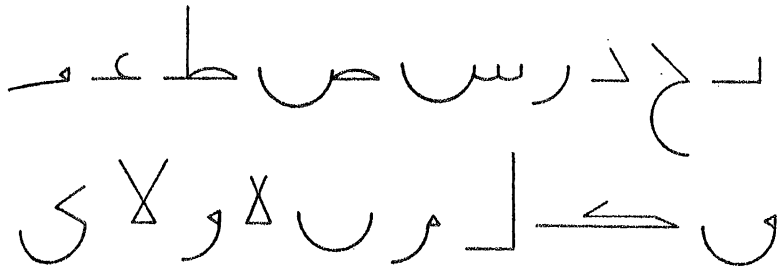


Figure 5.6 Nabia Abbott's reconstruction of Ibn Muqla's proportioned script.

Using the system of dots attributed to the tenth-century calligrapher Ibn Muqla, Nabia Abbott worked out a tentative reconstruction of the basic proportioned forms of the letters in Ibn Muqla's proportioned script (*al-khatt al-mansub*). Her reconstruction, however, is based on much later sources and shows only one of several possibilities.

anonymous Ibn 'Abd al-Salam, she worked out a system starting with a diamond-shaped point made by the pen when pressed heavily on the paper. The length of the sides of the rhombus depended on the width of the nib. Several dots placed vertex to vertex determined the height of the *alif*. All other letters were then related (*nusiba*) to this basic measure. As she noted, later sources spelled out the basic idea for the system, but not the exact proportion. The letter *ba'*, for example, is made of two strokes, one vertical, the other horizontal. The sum of the two is equal to the height of the *alif*, but the sources do not tell us the ratio of horizontal to vertical, which could vary from 1:1 to 1:5. By choosing one of several possibilities, Abbott reconstructed a hypothetical model for the proportioned script (Figure 5.6). It is essential to remember, however, that her model is based on much later sources (*al-Qalqashandi*, for example, was writing some five hundred years after Ibn Muqla) and is based on a series of personal choices.⁷⁰ A mistake in any one of those choices results in an error that distorts the whole schema.

If it is impossible to identify Ibn Muqla's hand from literary descriptions, it is only slightly less difficult to do so from surviving specimens. Like any hero, Ibn Muqla was idolized and his name added to multiple works. Many libraries contain pages or manuscripts with later marginal ascriptions attributing the transcription to Ibn Muqla.⁷¹ Even if not all are authentic, at least they give an idea of what people in medieval times (and later) thought Ibn Muqla's hand looked like. One example (Figure 5.7) is a tiny (12 × 9 cm) vertical-format Koran manuscript in the Raza Library in Rampur with twenty-three lines of broken cursive on each of the 215 vertical folios.⁷² Most of the large rectangular boxes contain chapter headings, but the two damaged ones on the bottom left sandwiching two lines of script contain the colophon, written in a different hand than the rest of the text.⁷³

The script, as with other pages attributed to Ibn Muqla, is a good example of broken cursive. Letters are set closely together on a flat baseline, occasionally with a notch or V between connected letters. The elongated bodies of *sad*, *kaf*, and *ha'* emphasize the horizontality. This is countered by the straight vertical line of *alif*, which has a short downstroke or spur at the bottom in final position. The tails of final *nun*, *ra'*, and similar letters are large and sweeping. Initial *'ayn* is large and open. Final *ya'* can turn backwards under the preceding word with

Figure 5.7 Closing double page containing Suras 108–114 from a parchment Koran manuscript with twenty-three lines per page signed by Ibn Muqla and dated 321/91?

This manuscript is signed and dated in the boxes at the bottom of the left page that appear to be in a slightly different hand than that used for the rest of the text. Nevertheless, the manuscript is the best possible candidate for an authentic example of this renowned calligrapher's hand. The script is angular, spacious, and well proportioned. It represents the regularization of broken cursive.

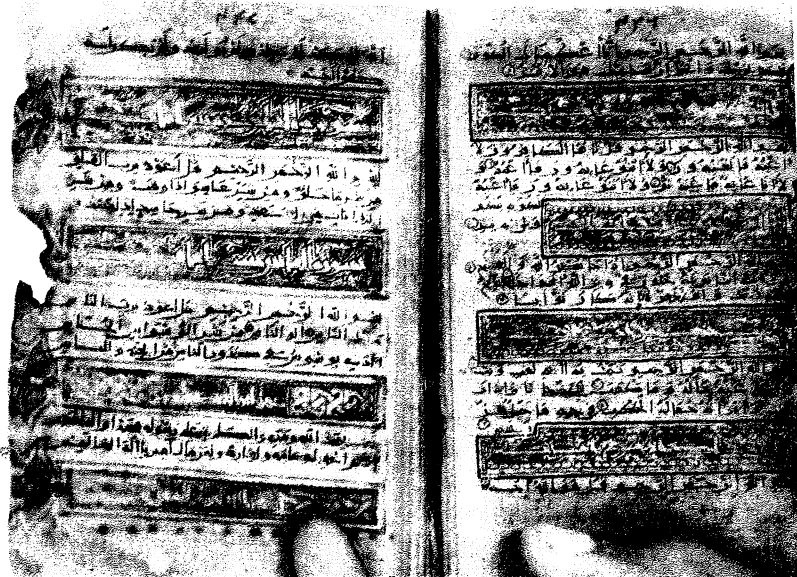


Figure 5.7a

bumps under the other letters, as in the word *sayasla* from Sura 111 on the bottom left (Figure 5.7a). This is the same mannerism used in the Koran manuscript penned by 'Ali ibn Shadhan (Figure 5.3a) and the one made for the Zirid nurse. Some letters have small serifs on the left.

The crisp, well-defined letters in the broken cursive assigned to Ibn Muqla enhance its legibility, a clear requisite for someone trained in the chancery. Features such as the consistent orthography and vocalization and the introductory pages with recension and verse counts also fit the chancery tradition of record-keeping. This script is clearly rooted in the round book script used since the ninth century (Figure 5.1). By the tenth century secretaries had elevated it into a well-proportioned and smooth script worthy of transcribing God's word.

The standardization of round scripts under Ibn al-Bawwab

The style of broken cursive canonized by Ibn Muqla and his circle at the beginning of the tenth century was a stiff and mannered script. Common until the thirteenth century, it became increasingly attenuated and stylized (see Chapter 6) and was soon joined and eventually supplanted by more free-flowing styles of round script. Just as the canonization of broken cursive was later associated with one historical figure, so the transformation of round script into one worthy of transcribing the scripture was later associated with a single person—Abu'l-Hasan 'Ali ibn Hilal, known occasionally as Ibn al-Sitri and more commonly as Ibn al-Bawwab. D. S. Rice collected the few details given by later chroniclers about Ibn al-Bawwab's life.⁷⁴ As his penname literally suggests, he was the son of a doorkeeper.⁷⁵ He worked first as a house decorator (*muzawwiq yusawwir al-dur*), then

illuminated books (*sawwara al-kutub*), and finally took up calligraphy, in which, according to the thirteenth-century chronicler Yaqut, he excelled all those who had preceded him and confounded all those who came after him. Ibn Khallikan gives a similar assessment, reporting that Ibn al-Bawwab revised and refined (the method of Ibn Muqla) and vested it with elegance and splendor. Medieval chroniclers report few facts about his life, beyond personal details like his long beard and his burial, following his death at Baghdad in 413/1022, near the tomb of Ahmad ibn Hanbal, one of the most revered sites of pilgrimage in the city.

As part of his interest in calligraphy, Ibn al-Bawwab composed an epistle on penmanship as well as a didactic poem in *basit* meter rhyming in *ra'*, in which he mentions the craft of writing and matters related to it.⁷⁶ Part of the poem has been preserved in various sources, including the treatise on history, *al-Muqaddima*, by the great Arab historian Ibn Khaldun (d. 1382), who judged Ibn al-Bawwab's poem one of the best things ever written on the subject.⁷⁷ The poem begins:

O you who want to write a calligraphic hand
 And desire to write and draw [the letters] well:
 If you are truly desirous of mastering the art of writing,
 Pray that your Master make [sic] it easy for you!
 Prepare a calamus that is straight
 And strong, capable of fashioning elegant writing with craft.
 If you propose to nib the calamus, aim
 At applying to it the greatest symmetry.
 Look at both ends of it, and then nib it
 At the end where it is thin and narrow.
 Give the part of the calamus that is nibbed a moderate size,
 Neither too long nor too short,
 And make the split precisely in the middle of the calamus so that
 the space nibbed
 On both sides of it will be exactly equal.
 Eventually, when you have done all this as carefully
 As the careful craftsman who knows what is wanted,
 Then, turn all your attention toward cutting the point,
 For cutting the point is the crux of the procedure.
 Do not beg me to reveal its secret.
 I am chary of its secret, a thing concealed.
 But the sum total of what I want to say is that
 The [point] should be something between oblique and round.
 Stir the [ink in the] inkstand with soot that is treated
 With vinegar or verjuice.
 Add to it red pigment that has been diluted
 With orpiment and camphor.
 Eventually, when [the ink] has fermented,
 Go to the clean, pleasant, tested paper.
 After cutting it, press it with a press, so as

To remove all trace of crumpling and soiling.
 Then, make patient imitation your habit.
 Only a patient person achieves what he desires.
 Begin by writing on a wooden slate, wearing it out
 With a resolution kept free from haste.
 Do not be ashamed of your bad writing
 When you begin to imitate [the letters] and draw lines.
 The matter is difficult [at the beginning], and then becomes easy.
 Many a thing that is difficult [at the beginning] turns out later on
 to be easy.
 Eventually, when you have achieved what you have hoped for,
 You will be filled with joy and gladness.
 Then, thank God and do His pleasure!
 God loves all those who are grateful.
 Furthermore, pray that the fingers of your hand will write
 Only what is good for you to leave behind in the house of deception.
 Everything a man does, he will be confronted with on the morrow,
 When he is confronted with the written decrees [on the Day of
 Resurrection].

Somewhat generalized and couched in metaphors, Ibn al-Bawwab's poem could never be used to learn how to write like Ibn al-Bawwab did. Nevertheless, it tells us a few things about calligraphy in his time. Like his predecessor Ibn Muqla, Ibn al-Bawwab gives precedence to the correct procedure for nibbing the reed pen, but Ibn Bawwab favors a different cut. Ibn Muqla advised that the point be trimmed obliquely to the right, but Ibn al-Bawwab advocates a symmetrical nib with something between a slanted and a rounded edge. Ibn al-Bawwab's poem also assumes that copyists wrote with a black, soot-based ink on paper, supporting the paper on a wooden board.

Ibn al-Bawwab's reputation has attracted attributions just like his predecessor Ibn Muqla's did. Six manuscripts have colophons naming Ibn al-Bawwab. The most famous is the Koran codex in the Chester Beatty Library, whose long and full colophon reports that 'Ali ibn Hilal transcribed this complete copy (*jami'*) at Baghdad in 391/1000-1.⁷⁸ Now trimmed, the 286 folios of polished brownish paper originally measured some 19 × 14 cm. Each page (Figure 5.8) contains fifteen lines of round script posed firmly on a straight baseline with no sign of ruling. The text is written in the *scriptio plena* and fully vocalized, with vowels and consonants written throughout in the same ink. Unpointed (*muhmala*) letters – *ha'*, *sad* and *'ayn* – are almost always distinguished by small versions of the same letters written below; *sin* and *ra'* are marked by an inverted circumflex above. Even though the script is about twice the size of that used in the copy attributed to Ibn Muqla (the *alif* here measures about .6 cm, whereas it is .3 cm in the Rampur manuscript), this codex has a denser aspect, as words and lines are packed more closely together.⁷⁹

Despite its compactness, the text is eminently readable because of

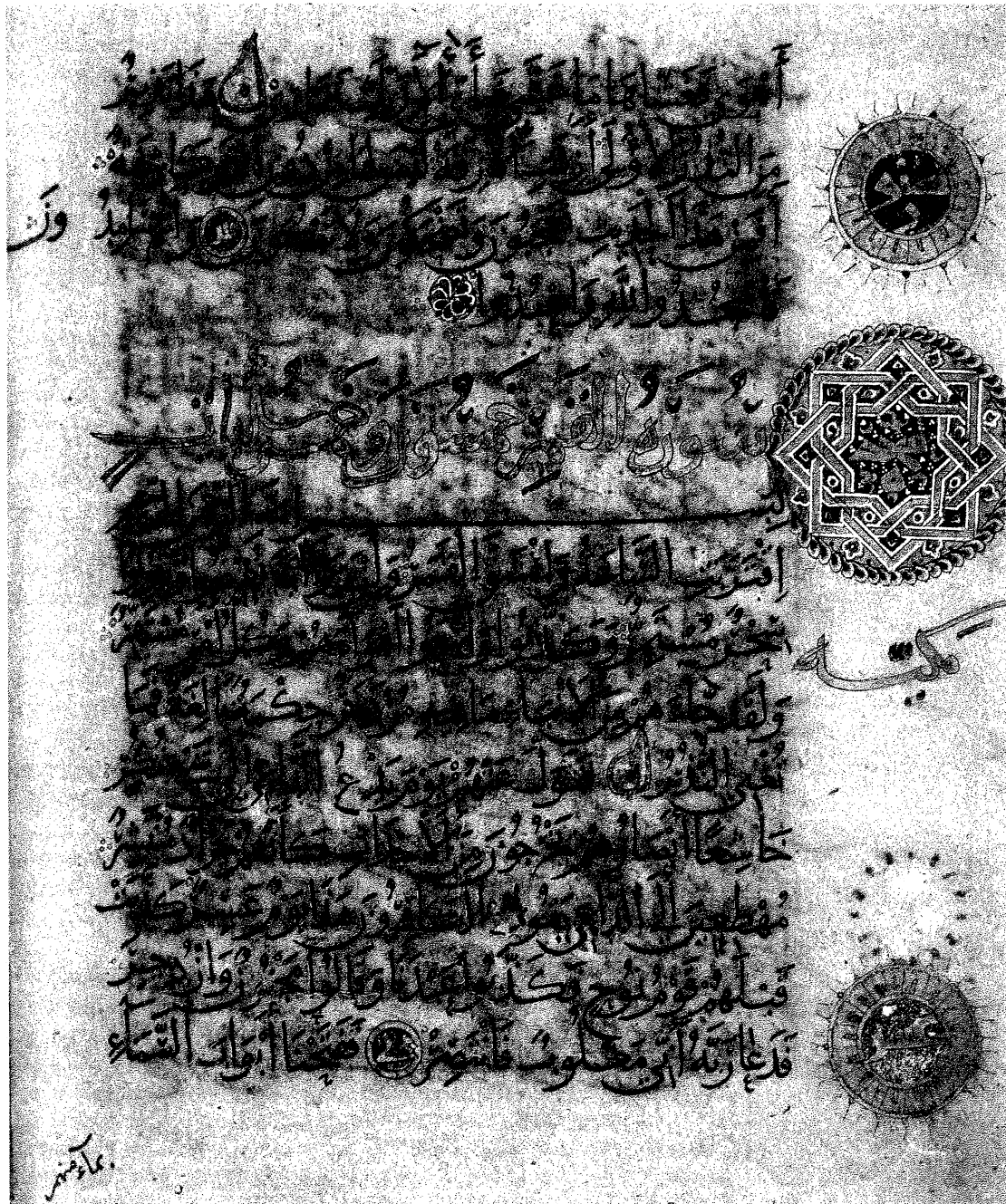


Figure 5.8 Page containing Suras 53:53-54:11 from a Koran manuscript with fifteen lines per page signed by 'Ali ibn Hilal, commonly known as Ibn al-Bawwab, at Baghdad in 391/1000-1.

This manuscript is generally reckoned to be the one authentic copy of the Koran penned by the renowned calligrapher Ibn al-Bawwab. It shows his new style of round script, remarkable for its clarity, neatness, and flow despite its modest size. This text script is juxtaposed to a more curvaceous one, used here as display script for the chapter heading. Other incidentals are added in a third script, broken cursive.



Figure 5.8a

the flowing hand. Letters are pitched just to the left of vertical, and individual words and letters like *kaf* typically slope downward from right to left, a movement echoed in the pairs of dots, which are written on the same right-to-left downward slope. The slope imparts a forward moment to the script, a flow that is enhanced by the strong sublinear rhythm created by the long swooping tails of final *nun*, *ya'*, and similar letters, which extend beneath the next word and sometimes encircle other descending tails before tapering to a point (Figure 5.8a). The script swells and contracts. To make a musical analogy, if the broken cursive attributed to Ibn Muqla is staccato, Ibn al-Bawwab's round hand is legato.

The sense of flowing movement engendered by the sloping strokes and sweeping tails is enhanced by the long sweeping stroke near the beginning of the basmala at the opening of most chapters (Figure 5.8a). At least since the ninth century, copyists writing round scripts on paper had used a long extender to visually demarcate the beginning of a new section of text, as with the word *qala* in the copy of the *Gharib al-Hadith* (Figure 5.1). This long stroke takes advantage of the inherent smoothness of the support and displays the copyist's virtuosity in pushing pen across page without wavering. From the late tenth century, copyists transcribing Koran manuscripts in broken cursive on the new support adopted this mannerism, an action that confirms the origins of broken cursive in round scripts.⁸⁰ Copyists typically lengthened the basmala to fill out the first line of text by inserting a long connector between the *ha'* and the *mim* of *al-rahman*.⁸¹ The extender therefore sits in the middle of the line. Ibn al-Bawwab's copy marks a change, for he lengthened the connector between *sin* and *mim* in *bism*, near the beginning of the line. Like a paragraph marker, the swinging stroke alerts the reader to a new section and then draws the eye across the page. This asymmetrical extender in the basmala becomes part-and-parcel of manuscripts and documents written in round scripts for centuries to come (e.g., Figures 6.12, 7.1, 8.1, 9.2, 10.3, 11.2, 12.2 and 13.2). Manuscripts in *maghribi* script (e.g., Figures 6.16, 9.12, and 12.13), in contrast, continue to use the centered extender, a mannerism that suggests the origin of that style in copyists' broken cursive.

When transcribing the text, Ibn al-Bawwab left no spaces between individual verses, later inserting clusters of three blue dots set in a triangle to mark the end of a single verse.⁸² But he did leave spaces at the end of every five and ten verses, later filling these spaces with the standard gold markers (*ha'* for five verses, a gold circle for ten). He inscribed the gold circle with a letter whose *abjad* value corresponds to the appropriate decade, and added a larger roundel in the margin that repeats the information with the decade written out in words. At the top of this page (Figure 5.8), for example, a gold *ha'* on the first line marks the fifty-fifth verse of Sura 53, a gold circle with *sin* (the alphanumeric for sixty in the eastern system) marks the sixtieth verse, which is further signaled by the large roundel in the margin with the word *sittun* (sixty) written out in words in broken cursive.

This system of gold markers too becomes the standard in later manuscripts (e.g., Figure 7.1). Larger roundels in the margin marked places of prostration, as here where the larger roundel with an interlaced star is inscribed *sajda* (prostration) in the same script.

Along with the round script of the text and the broken cursive of the markers, Ibn al-Bawwab used a larger round script for display purposes such as double-page frontispieces like this one (Figure 5.9) saying that this manuscript follows the verse count of the Kufans on the authority of 'Ali ibn Abi Talib.⁸³ Chapter headings, like the one marking the beginning of Chapter 54, Surat al-Qamar (Figure 5.8),⁸⁴ are written in a similar script but in two colors of gold ink, with yellow gold used for the words and coppery gold used for vocalization and diacritical marks. Ibn al-Bawwab deliberately distinguished this information, which is not part of the revelation, not only by size and script but also by color, outlining white letters with gold and gold letters with black or white.

Ibn al-Bawwab's display script (Figure 5.9) is distinguished by its curves. Descending tails of *nun* and similar letters are rounded and often impinge upon the next word. *Alif* is almost triangular, with a thick top that is beveled or furnished with a small hook to the right. At the bottom it has a hook to the left that sometimes connects to the next word. Final *ha'* is usually a squiggle that is open at the bottom.⁸⁵ *Dal* is relatively large, as in the word *muhammad* in the compartment in the middle right. *Ra'*, *waw*, and final *mim* often, though not always, end with a small upward hook, as at the end of *al-qamar*, the second word in the *sura* heading (Figure 5.8).

In addition to the elegant and legible text and display scripts, Ibn al-Bawwab's Koran manuscript is notable for its fine illumination. Text pages are decorated in the traditional blue, gold, and sepia, and the opening and closing pages include decoration in brown, white, green, and red as well. The illuminations are clearly done by the same hand that penned the manuscript, for the contour lines around the marginal palmettes marking the *sura* headings are drawn with a reed pen, not with the brush used for the rest of the decoration. Furthermore, in two places the illuminator drew the contours not with the standard blue pigment, but with the brown-black ink used for the text. Such a mistake could have occurred only if copyist and illuminator were the same person. This diversity of talent was not unique to Ibn al-Bawwab, and many other copyists of his time were also illuminators.⁸⁶

Identifying the round scripts that Ibn al-Bawwab used to transcribe this Koran codex is a complex problem. The scripts are not labeled, and textual sources say only that the calligrapher was a master of many scripts.⁸⁷ Rice designated the text script *naskh* and the display script *thuluth*,⁸⁸ and many modern scholars have followed suit.⁸⁹ This pair of small and large scripts are the most common of the round scripts later grouped as the Six Pens. *Naskh* (literally, copying), as its name suggests, was used to transcribe a variety of texts and became the calligraphic norm for transcribing ordinary books and small

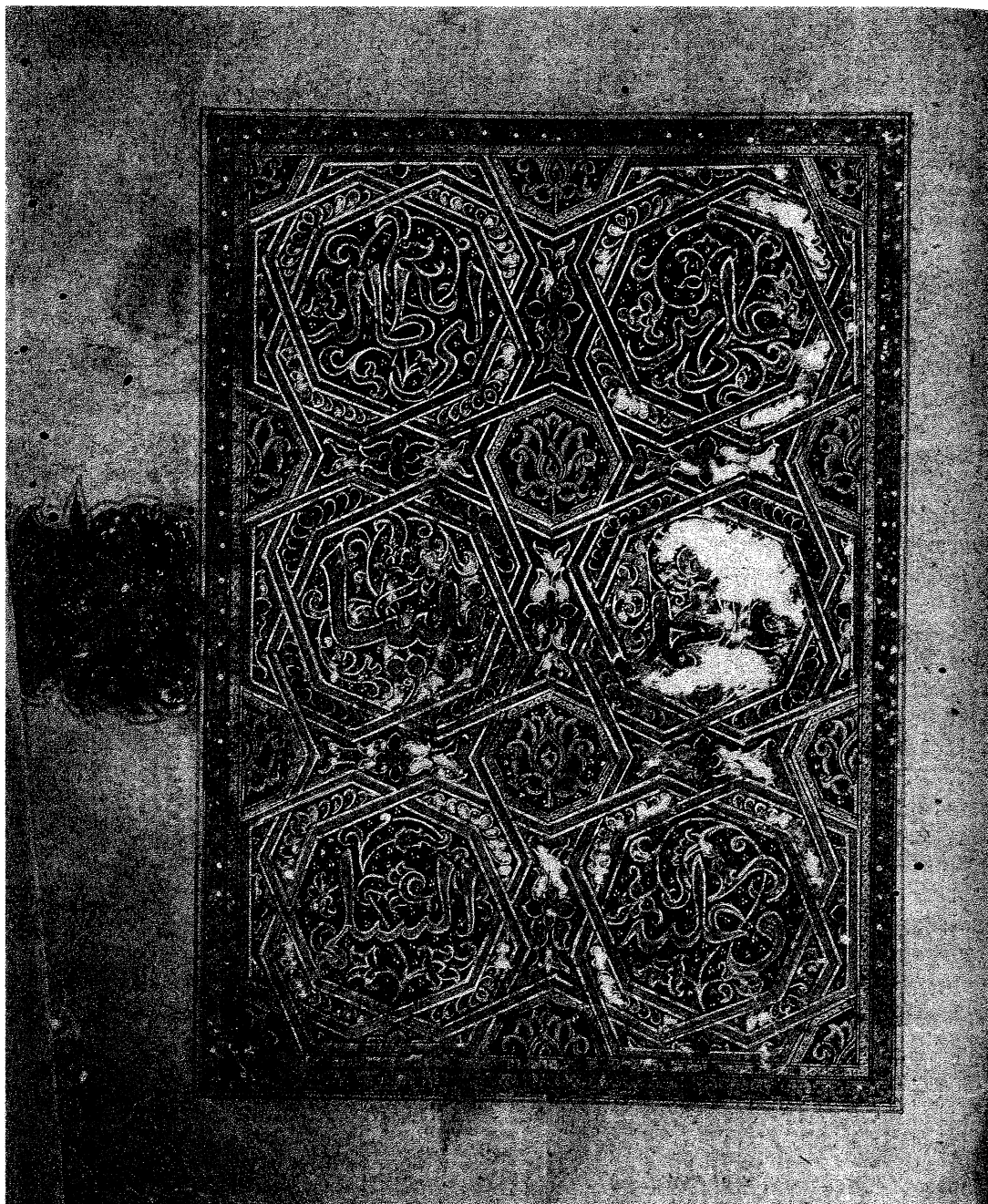


Figure 5.9 *Left half of a double-page frontispiece with octagonal compartments from a Koran manuscript, signed by Ibn al-Bawwab at Baghdad in 391/1000-*

The illuminated double pages at the beginning and end of this Koran manuscript show other round script. The page shown here stating that this copy follows the verse count of the Kufans on the authority of 'Ali ibn Abi Talib shows how the letters in the display script begin to be linked together, as in the word *Abi* in the compartment on the upper left.

Koran manuscripts. It is generally described as neat and balanced, with an equal division between flat and round shapes and heavy and light strokes.⁹⁰ It is easy to read, especially for modern readers, since it is the basis for modern typography.

Naskh's larger counterpart is known as *thuluth* (or *thulth*), a verbal noun designating a third part or portion.⁹¹ The earliest sources about the measured script (*al-khatt al-mansub*) contain proportional names such as one-half (*nisf*), one-third (*thuluth*) and two-thirds (*thuluthayn*), and writers since medieval times have puzzled over what these names mean. The Mamluk chronicler al-Qalqashandi, for example, puts forward two hypotheses.⁹² One theory tries to apply these names to the proportion of straight lines in a particular style. Thus, *thuluth* is said to have one-third straight lines (and two-thirds curved).⁹³ According to another theory, the names relate to the size of the pen (*qalam*) used to write on the different-sized pages.⁹⁴ Other modern writers on the subject have suggested that the proportional system derived from the number of rhomoidal points made by pressing the nib of the quill pen on paper.⁹⁵ All of these theories must remain hypothetical as the information given in the early sources is unclear. Most of it is known only second-hand, and later authors clearly did not understand what earlier sources were talking about. Ibn al-Nadim makes such a hash out of what his predecessor Ibn al-Thawaba (d. 890) had said a century earlier that it is impossible to translate the passage so that the numbers and headings agree.⁹⁶

Noting the differences between the scripts that Ibn al-Bawwab penned and the versions of *naskh* and *thuluth* that we know today, other scholars, notably those who are themselves calligraphers, have designated Ibn al-Bawwab's scripts differently. Habiballah Faza'ili, for example, called Ibn al-Bawwab's text script *naskh* mixed with *rayhan* as well as traces of *thuluth*; Uğur Derman used simply *rayhan* for the text script and *tawqi'* for the display script.⁹⁷ Both are round scripts later included as two of the Six Pens.

The first of these round scripts, *rayhan* (literally, sweet basil), may go back to 'Ali ibn 'Ubayda al-Rayhani (d. 834–5), a man of letters and intimate of the 'Abbasid caliph al-Ma'mun who was described in the *Fihrist* as a master of elegant writing and style.⁹⁸ Like *naskh*, *rayhan* is a small script (its larger counterpart today is *muhaqqaq*). The modern version of *rayhan* is written with serifs on *alif* and *lam*, looped letters that are open (not filled in or blind), as well as longer tails and more rounded bowls than those used in *naskh*, all features that can be seen in Ibn al-Bawwab's hand in this Koran manuscript.⁹⁹

The second of these round scripts, *tawqi'*, is the verbal noun of the intensive form *waqqa'a* derived from the verb *waqa'a* (to sign) and designates the inditing or registering of a ruler's decree. S. M. Stern determined that in 'Abbasid times the term came to mean the ruler's official signature, written in the form of a short slogan or motto added to a decree after it had been written to verify it.¹⁰⁰ Like the protocol on a papyrus scroll (Figure 2.1), the signature was written in a

distinctive large script. We know about 'Abbasid versions of this formal signature only from textual sources,¹⁰¹ for the first surviving documents with such signatures survive only from the twelfth century (Figure 6.7). Such signatures, like handwritten signatures today, are marked by unauthorized connections between letters. For example, *alif*, which should never connect to the following letter, can be connected to *dal* in this script, and similarly *ra'* to *jim*. Final *nun* is often distended so that it can be indistinguishable from *ra'*. In the prefix *alif-lam*, the *alif* is usually connected to the preceding word and dissolves into a small horizontal stroke leading into the *lam*. Initial *ta'* is distorted into a wavy line. The fluidity shows that these were chancery scripts, in which speed was essential. This pair was then adopted for fine calligraphy, used mainly for signatures and colophons. Ibn al-Bawwab's large display script shows such unauthorized connections between letters that do not regularly join. In the frontispiece (Figure 5.9), for example, *alif* connects to *ba'* in the word *abi* in the octagonal compartment on the upper left. Similarly, in the *sura* heading (Figure 5.8), the tails of *ra'* impinge on the next word and the initial *alif* in the last word *ayat* begins with a swinging stroke.¹⁰²

The round scripts that Ibn al-Bawwab used in his Koran manuscript, then, fall between the scripts as we know them today.¹⁰³ Ibn al-Bawwab's hand in this manuscript also differs from the round script used in contemporary Koran manuscripts made in the region, which generally have shorter tails and smaller bowls, features associated with modern *naskh*.¹⁰⁴ We should not be surprised at such differences in style, for no such standardization was possible at this time. Although any single copyist may have thought that he was writing a particular type of round script, it is anachronistic to imagine that these scripts were uniform in all times and places. Styles of writing changed. Criteria varied. Those of us taught to write cursive in American schools in the 1950s and 1960s were all expected to emulate the swooping cursive written in white on green cards posted at the top of the blackboard. Such standardization through a printed text, however, is a modern phenomenon, and no such style-sheet was available in medieval times when learning was multi-centered and transmitted individually from master to pupil. The same holds for literary works. Whereas people today expect a standardized printed edition with a single date of publication, medieval texts were revised constantly. Epic poetry was recited orally, with variations possible at each recital and committed to writing long after composition. Standardization is a modern phenomenon.

We can see the variations possible in the round scripts at the this time by examining another – and quite different – manuscript signed by Ibn al-Bawwab: a luxury codex containing the collected works of the pre-Islamic poet Salama ibn Jandal as recorded in two recensions (a Basran one by al-'Asma'i and a Kufan one by Abu 'Amr al-Shaybani which was read before 'Umara) that were united in the ninth century

by Muhammad ibn al-Hasan al-Ahwal.¹⁰⁵ Penned on large (42 × 31 cm) sheets of fine creamy paper in gold and black ink, the 34-folio manuscript contains a large gold colophon stating that it was copied in Ramadan 408/January–February 1018 by ‘Ali ibn Hilal, referring to Ibn al-Bawwab (Figure 5.10). The manuscript quickly became a prized possession in eastern Iran, for an extremely elaborate but partly effaced ex-libris on folio 1a says that it was for Abu Sahl ibn Hibatallah al-Muwaffaq, leader of the Shafi‘ite community in Khurasan and vizier who bore these titles c. 455–6/1063–4.¹⁰⁶

This copy of the poems of Salama ibn Jandal juxtaposes two round text scripts for text and commentary. On regular pages, the lines of Salama’s poetry written in a large heavy script are followed by shorter lines of commentary written in a smaller and lighter one. Size and script thus distinguish text (in this case, eight poems with 136 verses) from commentary. The two distichs of Salama’s poetry are too long to fit in a single line, so the line text runs off at an angle to the lower left.¹⁰⁷ This format sets the model for other poetic texts, notably copies of al-Busiri’s poem on the Prophet’s mantle made in Mamluk times (Figure 8.8).

On the last page with the colophon (Figure 5.10), Ibn al-Bawwab modified this logical juxtaposition of larger and smaller scripts for poem and commentary. At the top are three lines concluding the commentary on the distich found on the previous page. They are written in smaller script, followed by a circle with a dot, indicating that the text has been proofread (*muqabala*).¹⁰⁸ The indented double line below, written in the same small script, gives the concluding *qasida* by Salama ibn Jandal, the third in this collection: To whom belong the traces of encampment (*talulun*) which resemble a well-written piece of writing (*al-kitab al-munammiq*)?¹⁰⁹ The verse belongs to the well-known genre comparing the charcoal remains of a campfire in the sands to black writing on a white page, a poetic metaphor showing that the pre-Islamic Arabs knew about writing.¹¹⁰ The remaining text on the concluding page gives the chain of transmission. The name of the immediate authority – the early tenth-century grammarian Abu ‘Abdallah Muhammad ibn al-‘Abbas al-Yazidi – is written in the large bold script usually reserved for the words of Salama, followed by the chain of transmission back to ‘Umara in the smaller lighter script.¹¹¹ Script no longer coincides with content, an indication that the juxtaposition of scripts was still a new phenomenon.¹¹²

The large bold script, typically used for Salama’s poetry and here used for the name of the transmitter, can be identified as *thuluth* because of its elongated proportions (*alif* measures about seven times the height of the punctuation dot) and such features as *alif* with a hook at the top right and a foot on the bottom left, large *dal*, and open squiggly stroke for *ta’ marbuta* that darts upward like final *ra’*. Medial *mim*, as in the name *muhammad* in the center of the line (Figure 5.10a), is written as a folded stroke rather than a circle. Words

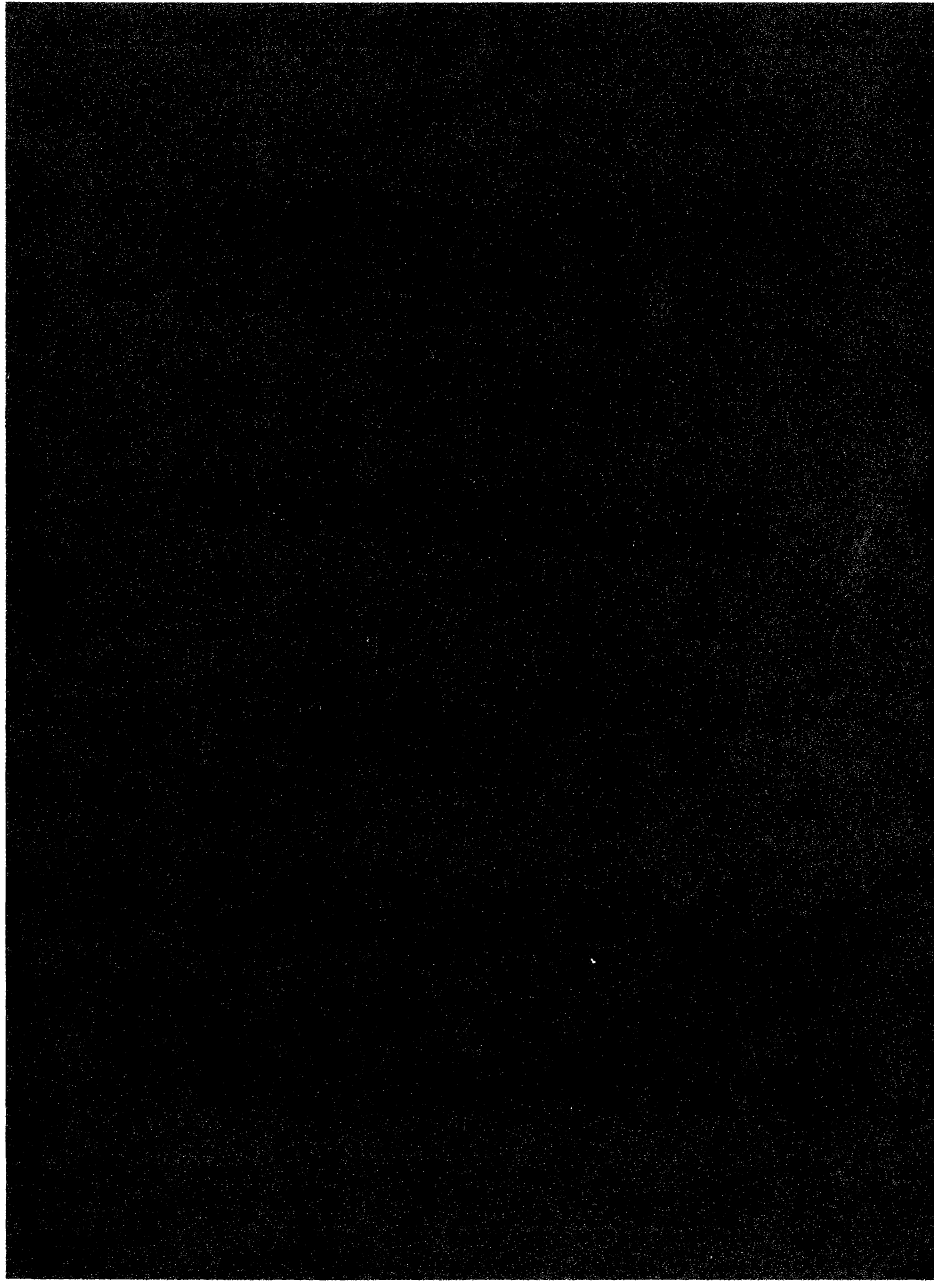


Figure 5.10 *Final page from a copy of the poems of Salama ibn Jandal copied by ‘Ali ibn Hilal, commonly known as Ibn al-Bawwab, in Ramadan 408/January–February 1018 and later in the collection of Abu Sahl ibn Hibatallah al-Muwaffaq, leader of the Shafi‘ite community in Khurasan, c. 455–6/1063–4.*

This luxury manuscript is the first surviving example to show an equal juxtaposition of two text scripts. The verse by the pre-Islamic poet Salama is typically written in a bold *thuluth* with shallow bowls and pointed tails below the baseline balanced by bold strokes for pointing above it. It is juxtaposed to shorter lines in a smaller *rayhan* with similar forms. The colophon is added in *tawqi*‘ notable for its unauthorized connections and blind letters.

are nested inside each other, and the impulsive forward motion is emphasized by the diagonally set dots and the sloping vocalization for *fatha* and *kasra*, written with a thinner pen. The calligrapher used the same pen for the shorter lines penned in a small neat script to be identified as *rayhan* because of its sweeping curves, serified *alif*, and *ta' marbuta* with an open eye.¹¹³

Not content with these two text scripts, Ibn al-Bawwab used several other round scripts for display. The colophon is penned written in large gold letters. They are much like the ones used for the large line in *thuluth*, but with two significant differences: the unauthorized connections, notably between the *ra*'s of *shahr* and *ramadan* in the center of the top line (Figure 5.10b), and the blind eyes of the letters that are filled with black ink. Compare, for example, the *mims* of *muhammad* at the end of the colophon in *tawqi'* (Figure 5.10c) with those in the same word in *thuluth* (Figure 5.10a).

Ibn al-Bawwab played with yet other scripts and colors on the opening page of this de luxe manuscript (Figure 5.11). The second line recording that the manuscript contains the words of Salama ibn Jandal are set off in an elegant script notable for its strokes of uniform thickness, tall straight *alifs*, rounded bowls, and open eyes. It can be identified as another of the Six Pens, *muhaqqaq*. The name derives from the root *haqqa*, meaning to be or become just, right, correct, or true.¹¹⁴ The second form *haqqaqa* has a similar but intensified meaning, and *muhaqqaq*, the past participle of the second form, was applied to speech or language to mean sound, compact, or orderly. Chroniclers used the term *muhaqqaq* in two ways: on the one hand, for well-penned and formal execution,¹¹⁵ and on the other, for a specific script that became popular for transcribing Koran manuscripts.¹¹⁶ *Muhaqqaq* is said to have been the first script systematized and geometrically defined by Ibn Muqla,¹¹⁷ but it seems to have still been evolving at this time.¹¹⁸

As compared to *naskh* and *thuluth*, the letters in *muhaqqaq* are more upright, with well-spaced ligatures and a marked horizontality. Initial *alif* sits on the baseline; it usually has a small wedge-shaped serif at the top right, but never swings outs at the lower left. By contrast, in *naskh*, *alif* is a straight stroke without a hook at the top but often with a bend to the lower left. In *muhaqqaq*, final *ha'* (as in *salama*) is written as a loop that is closed at the bottom, as distinct from the same letter in *thuluth*, a squiggle open at the bottom. In *muhaqqaq*, letters such as *ra'* and *waw* generally end in straight, sharp tips that point diagonally downward without the returning upward hook used in *thuluth*. The emphasis is on the bodies and heads of the letters, as sublinear elements are reduced. Tails do not descend as far below the baseline as they do in other scripts. Rather, the bowls of descending strokes in *muhaqqaq* are shallow, elliptical, and sometimes extended to encircle the following letter, as here with the bowl of *nun* in *ibn* that encircles the opening letters of *jandal*. Because of its pointed ends and linearity,



Figure 5.10a



Figure 5.10b



Figure 5.10c

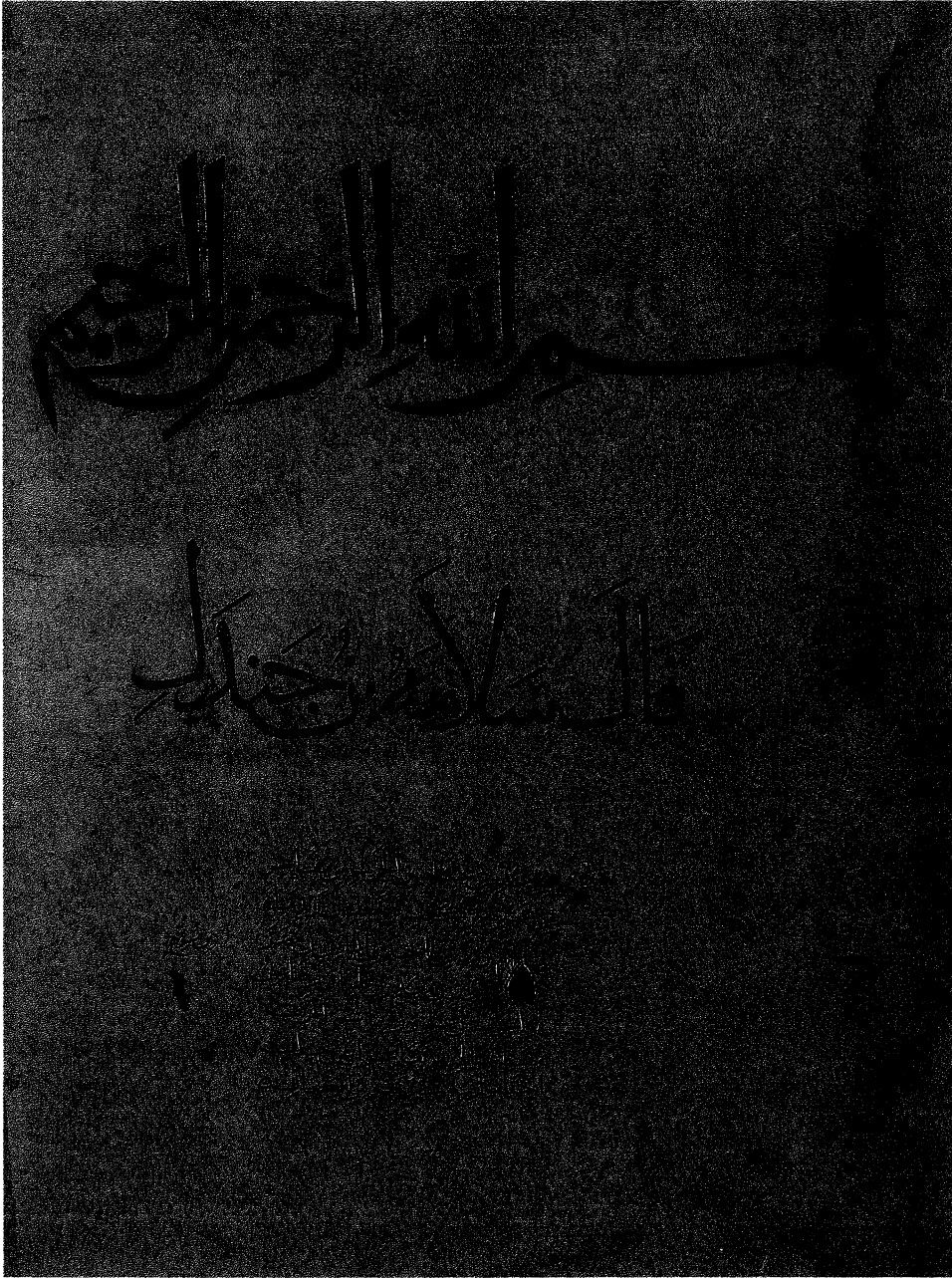


Figure 5.11 Opening page from a copy of the poems of Salama ibn Jandal copied by 'Ali ibn Hilal, commonly known as Ibn al-Bawwab, in Ramadan 418/January–February 1018 and later in the collection of Abu Sahl ibn Hibatallah al-Muwaffaq, leader of the Shafi'ite community in Khurasan, c. 455–6/1063–4.

Ibn al-Bawwab used yet other round scripts on the opening page of this manuscript to set off different subjects. The invocation to God at the top is written in black outlined in gold in a firm bold script that resembles *muhaqqaq* but with unusual *alifs*. The second line announcing the author of the work, Salama ibn Jandal, is set off in gold outlined in black in a more standard *muhaqqaq*. These lines of large script are juxtaposed to a smaller *rayhan*.

muhaqqaq is sometimes called dry (*yabis*) as opposed to the wet (*murattaba*) *thuluth*.

Ibn al-Bawwab used a variant of large script for the top line with the basmala, penned in black outlined in gold. In many ways the script resembles *muhaqqaq*, although the *alifs* are bolder, almost triangular, and end with a left-turning foot, features typical of *thuluth*. Ibn al-Bawwab deliberately varied his color and style of script to set off the text with the invocation to God.

The text in smaller script at the bottom of the page contains Salama's genealogy. Two generations were inadvertently omitted on the first and third line, and so they were added in the margin, with a comma-like stroke in the text marking the place where they should be inserted. The dot in a circle at the end indicates that the text has been proofread. Compared to the script used in Ibn al-Bawwab's Koran manuscript (Figure 5.8), the letters here are set more spaciouly and have much shorter tails, a comparison that shows how the calligrapher could vary his hand to suit different types of text, as with the Koran and poetry. Yet many features of punctuation are the same. *Muhmila* letters like *'ayn*, for example, are regularly marked and dots set on a slope. What is most remarkable about this fine manuscript of Salama's poetry is the virtuosity of the hand: the scripts are all clean, crisp, and unwavering, hallmarks of a master calligrapher.

In succeeding centuries the round scripts used by Ibn al-Bawwab at the turn of the tenth to eleventh century became pre-eminent for transcribing the Koran and other important texts, especially in Iraq and adjacent lands. As with Ibn Muqla and broken cursive, Ibn al-Bawwab's canonization of round scripts for both text and display was later seen as a benchmark. The question therefore arises: why did these round scripts rise to prominence at this time?

What caused the canonization of round scripts?

Scholars have put forward at least three different lines of reasoning to explain why copyists in the late ninth or early tenth century transformed the regular round scripts into calligraphic styles worthy of transcribing the Koran and other important texts. These explanations are not necessarily exclusive. Rather, they reflect the different interests of the scholars who proposed them, as well as their different approaches to the subject.

Déroche, befitting his training and erudition as a paleographer, proposed that the answer to this question may have something to do with the type of pen used for the new style of writing.¹¹⁹ He speculated that it could have been a new type of reed pen, a new method of sharpening the nib, or a new way that the pen was held, placed on the page, or moved across it. Both Ibn Muqla and Ibn al-Bawwab commented on the importance of preparing the nib correctly, since the point determines the handwriting. Such changes in pen are known in

other calligraphic situations. To write italic script, for example, one uses a special pen.

Furthermore, the canonization of round script came at a time of significant changes in the materials used in the Islamic lands to make books. This was the period when paper replaced parchment as the main medium of support.¹²⁰ Paper, which had been used in the 'Abbasid chancery since the beginning of the ninth century, was adopted for secular manuscripts at least from the mid-ninth century. The change from parchment to paper also seems to have engendered a change from dark-brown, tannin-based ink (*hibr*) to black soot ink (*midad*). Ibn al-Nadim, our earliest major source for Arabic calligraphy, first mentions Ibn Muqla as one of three viziers who used black ink. Thus, a first type of answer to the question is physical: new materials such as pen, paper, and black ink may have led to the canonization of round scripts in the tenth century. Such practical factors caused similar changes in scribal traditions elsewhere: in fourth-century China the ready availability of paper and a more supple brush caused the modification of Clerical Script (*lishu*) to the simpler Regular Script (*kaishu*);¹²¹ in fourteenth-century Russia the change from parchment to paper engendered an evolution from uncial to semi-uncial script.¹²²

Whelan, reflecting her training as an art historian, proposed a historical explanation, suggesting that the canonization of round scripts reflected the new role of the chancery secretary as copyist. Whereas kufic Koran manuscripts were transcribed by members of the ulema who did not sign their work, manuscripts in round scripts include colophons signed by people bearing the epithets *warraq* (bookseller or copyist) or *katib* (scribe or secretary). The adoption of round scripts coincided with the development of the chancery under the 'Abbasids and its central bureaucratic direction through the office of vizier.¹²³ It may have been secretaries, then, who introduced these new materials and styles. Ibn Muqla, for example, was first a member of the chancery and then a famous calligrapher.

Tabbaa, as part of his broader argument for the revival of Sunni Islam, suggested that political motivations lay behind these calligraphic innovations.¹²⁴ He argued that Ibn Muqla, as vizier of the 'Abbasid caliph al-Muqtadir, adopted the new proportioned script to represent the seven readings of the Koran collected by Ibn Mujahid. Ibn Mujahid's seven readings were made official under Ibn Muqla's auspices in 322/934 when the scholar Ibn Miqsam was forced to retract his claim that the consonantal text of the Koran could be read in any manner that was grammatically correct. The following year another Koranic scholar, Ibn Shanabudh, was similarly condemned and forced to renounce his support for the permissibility of other variant readings. In the same vein, Tabbaa argued that the second reform of Koranic script by Ibn al-Bawwab was rooted in contemporary political events, specifically the promulgation of an official Sunni theology under the 'Abbasid caliph al-Qadir (r. 991-1031). The

caliph's struggles against religious dissent culminated in the so-called Epistle of al-Qadir (*al-risala al-qadiriyya*). This text, which was read in the palace in 1018, condemned Shi'ism in all its forms as well as Mu'tazilism and even Ash'arism.

To my mind, Tabbaa's political arguments are not convincing for several reasons. One problem is the limited scope of his inquiry, which concentrates on Koran manuscripts. This unjustly truncates the field of inquiry, for round script, unlike kufic, was not exclusive to Koran manuscripts. Broken cursive, along with other styles of round script, was used for many other types of texts copied at the same time as their Koranic counterparts. These include not only religious works such as treatises on Traditions and the life and qualities of the Prophet but also Sufi manuals, grammars, histories, poetry, and even Arab-Christian texts, a diverse group whose subject matter has little to do with official theology.¹²⁵ Moreover, these diverse manuscripts were made for a variety of patrons. Some were, as wealthy men of the time, staunch Sunnis. Others were not.¹²⁶

In my opinion, such a political reading also distorts the character and impact of both calligraphers.¹²⁷ Religious tensions splintered the Islamic community in the medieval period, but there is no evidence that copyists developed or adopted styles of writing to address these issues. The names of famous calligraphers like Ibn Muqla and Ibn al-Bawwab are convenient pegs on which to hang the names of stylistic changes, but doing so reiterates the prosopographical bias of the sources, particularly biographical dictionaries.¹²⁸ Associating names with stylistic innovations also reflects our modern age of scientific discovery, in which the name of an inventor is made synonymous with the invention and the name of a designer adds caché to a dress or handbag. Artistic change, by contrast, is a continuous process.

Tabbaa's association of round scripts with Sunni Islam is also based on negative evidence. He argued that the work of Ibn Muqla and Ibn al-Bawwab had virtually no impact in Egypt during the period of rule by the Shi'ite Fatimids (969–1171), since he knew of no Koran manuscript in broken cursive or other round script made there until the beginning of the thirteenth century.¹²⁹ Arguing from negative evidence is always dangerous, since what has survived does not necessarily reflect what was made. Absence of evidence is not evidence of absence. No Koran manuscript in these scripts can be attributed to Fatimid Egypt, but as yet we have no evidence to attribute any Koran manuscript to Fatimid Egypt.¹³⁰ It is plainly wrong, however, to imagine that the Fatimids did not commission such manuscripts.

Medieval historians describe the enormous libraries in Fatimid Cairo. According to the Fatimid historian al-Musabbihi (d. 1029), whose eye-witness account has been preserved in the *Khitat*, the topography of Cairo by the Mamluk historian al-Maqrizi,¹³¹ the treasury contained a superb library based on the caliph's personal holdings. The works belonged to all categories of science and letters and were

of remarkable quality. Masterpieces written by famed calligraphers in the proportioned script (*al-khatt al-mansub*) were so numerous and so beautiful that one could be sure, the Fatimid historian adds, of never seeing the equivalent belonging to another monarch. Al-Musabbihi also describes the vast deposits of the royal library attached to the Fatimid court, which contained, among other things, twenty copies of the history by al-Tabari, a work that stretches to thirty volumes in the modern printed edition, and one hundred copies of *al-Jamhara*, the monumental dictionary by the ninth-century philologist Ibn Durayd. Even allowing for the usual hyperbole in al-Musabbihi's panegyric, it is clear that the Fatimids owned lots of books, many of them in the 'proportioned script.'¹³²

Of this richness, only two manuscripts belonging to the royal Fatimid library have been identified.¹³³ One is a unique copy of Abu 'Ali al-Hajari's commentary *al-Ta'liqat wa'l-nawadir* transcribed for al-Afdal, son of the Armenian commander Badr al-Jamali and Fatimid vizier from 1094 to 1112.¹³⁴ The title at the top is written in a legible round hand, with long swooping tails in which the width of the stroke changes, as in broken cursive. The ex-libris of the Fatimid vizier at the bottom is written in a standard round script, as is the librarian's note in the middle saying that the manuscript was added to the library of the Fatimid caliph al-Fa'iz (r. 1154–1160).

The second manuscript that belonged to the Fatimid library is also a unicum: a genealogical treatise about the Quraysh tribe transcribed by the celebrated grammarian Ishaq al-Najayrami in 355/966.¹³⁵ This manuscript was not prepared for the Fatimids, but rather transcribed at Baghdad in the tenth century. It then passed to Egypt, where it was registered in the library of the Fatimid caliph al-Zafir (r. 1149–54). Befitting its origin in 'Abbasid Baghdad, the genealogical treatise is transcribed in the broken cursive used there in the tenth century. Such a script cannot have carried any adverse political implications, for the manuscript was readily accessioned into the library of the 'Abbasids' rivals, the Fatimids.

These two manuscripts are not enough to define a Fatimid style of calligraphy,¹³⁶ especially as only the title pages have been published and moreover as one of the two manuscripts was written for the 'Abbasids, but they do tell us that Fatimid librarians in the twelfth century wrote a clear and readable round hand. The tendency to run together letters such as *dal* and final *ha*' shows the hand of a librarian who wanted to speed up his work, but the lengthening of connectors, like the one between *'ayn* and *mim* in the word *'ammaraḥi*, in the ex-libris in both manuscripts shows that the librarians were also concerned with visual effect. Sparse though the evidence is, these two manuscripts confirm textual descriptions that the Fatimids knew, appreciated, and used round scripts.

The misleading association of round script and Sunni Islam is particularly troublesome as it has led to further erroneous conclusions,

notably the association of not only round scripts but also geometry with Sunni Islam. Tabbāa raised the idea that the proportioned script was yet another of the many applications of geometric principles to Islamic art in the late tenth and eleventh centuries. He differentiated between the visible geometry of the rectilinear kufic script and the invisible geometry of Ibn al-Bawwāb's proportioned script, described by the sixteenth-century Mamluk chronicler al-Tayyibī as a script without any visible external edges (*an la tura min al-khariji zawayahu*).¹³⁷ Tabbāa suggested that the proportioned script, like geometric strapwork and *muqarnas*, exemplified the assimilated geometry that pervaded a variety of artistic forms in the eleventh century.

Tabbāa ultimately rejected the idea that geometry was the primary cause in motivating the formation of the proportioned script, but his idea was enthusiastically taken up by Gölru Necipoğlu.¹³⁸ She suggested that the geometric mode, which she called *giriḥ* from the Persian word for knot, appeared first in manuscript illumination, citing the frontispiece to the Koran penned by Ibn al-Bawwāb at Baghdad in 391/1000–1 (Figure 5.9) as the earliest example of the new round script and interlaced patterns composed of stars and polygons. Like geometric interlacing, round script was thus, she argued, part of the Sunni revival. She concluded that 'the geometric mode seems to have represented a new visual order projecting a shared ethos of unification around the religious authority of the Abbasid caliphate, the locus of orthodoxy and the ultimate source of legitimacy for the fragmented Sunni states.'¹³⁹

In my view, the canonization of round scripts (and also geometry) had nothing to do with religious sectarianism in the tenth century. There is no evidence to show that Ibn al-Bawwāb and his associates transcribed their copies of the Koran for the ruling 'Abbasid caliphs or their court. Rather, such evidence as we have suggests that these copies were prepared for the Buyids and other Shi'ites of the time. Moreover, the same scripts were used not just for Korans, but for a variety of texts, including genealogies, histories, Sufi manuals, and many other subjects. Koran manuscripts were particularly fancy and so they tend to assume pride of place in studies of calligraphy, but it is essential to remember that the same copyists used the same scripts to transcribe other texts.

The adoption of round scripts as calligraphic scripts worthy of transcribing the Koran and many other types of texts represents the triumph of the secretarial class, scribes who had long used round script, paper, and black ink. Such changes were not grounded in theological disputes, but rather reflect social and cultural changes, in which the old guard – devout scholars who penned unsigned copies of the Koran in kufic script for public recitation or display in mosques – was gradually displaced by a professional class of secretaries who provided books to private patrons. This new class of copyists was, if anything, rather lax in its knowledge of the Koran, Traditions,

religious law, and the like.¹⁴⁰ The change in calligraphic style was not abrupt, and kufic continued to be used alongside round styles for several centuries (Figure 4.10). We associate the adoption of round scripts with the names of Ibn Muqla and Ibn al-Bawwab, but their names are only emblematic of a gradual change that took hundreds of years to effect.

Notes

1. This period corresponds to the first centuries of Hodgson's earlier middle period, his book three, 'The Establishment of an International Civilization.' See Marshall G. S. Hodgson, *The Venture of Islam* (Chicago: University of Chicago Press, 1974), 2:1–368.
2. The main proponent of using textual sources to identify individual scripts was Nabia Abbott, *The Rise of the North Arabic Script and its Qur'anic Development, with a Full Description of the Qur'an Manuscripts in the Oriental Institute*, University of Chicago, Oriental Institute Publications (Chicago: University of Chicago Press, 1939); Nabia Abbott, 'Arabic Paleography,' *Ars Islamica* 8 (1941): 65–104. Her method has been evaluated lucidly by François Déroche, 'Les écritures coraniques anciennes: bilan et perspectives,' *Revue des Études Islamiques* 48 (1980): 207–44, and summarized in François Déroche, *The Abbasid Tradition: Qur'ans of the 8th to the 10th Centuries AD*, ed. Julian Raby, The Nasser D. Khalili Collection of Islamic Art (London, 1992), 132–5.
3. In his original publication, *Les Manuscrits du coran, aux origines de la calligraphie coranique*, Bibliothèque Nationale, Département des Manuscrits, Catalogue des Manuscrits Arabes (Paris, 1983), Déroche also had an NS II, an intermediate style that shared characteristics between NS I and NS III, but this category had dropped out by the time of his next major publication, *Abbasid Tradition*.
4. In his catalogue of the fragments in the Khalili Collection (*Abbasid Tradition*), Déroche generally put the pages in his NS III style (nos. 75–7, 79, 81) before those in NS I (nos. 78, 80, 83–90, 92–8). The problem of distinguishing the two is clear from no. 82, which is described only as a miniature form of NS, and no. 91, which is said to be related to (but different from?) NS III.
5. Eastern kufic was used, for example, in Martin Lings and Yasin Safadi, *The Qur'an* (London, 1976); Iranian kufic in *Gulchīnī az qur'ānhā-yi khattī-yi mūza-yi dawrān-i islāmī* [*A Selection of Koran Manuscripts in the Museum of the Islamic Eras*] (Tehran, 1375/1997); Persian kufic in Arthur J. Arberry, *The Koran Illuminated: A Handlist of Korans in the Chester Beatty Library* (Dublin, 1967), 10–14; and eastern Persian kufic in Eric Schroeder, 'What Was the *Badī* Script?' *Ars Islamica* 4 (1937): 232.
6. Lings and Safadi, *The Qur'an*, 24–31.
7. Both late and flowering kufic are mentioned in Schroeder, 'What Was the *Badī* Script?'; bent kufic in Lings and Safadi, *The Qur'an*, 32; broken kufic in EI/2, 'Khatt' and semi-kufic in Yasser Tabbaa, 'The Transformation of Arabic Writing: Part 1 Qur'anic Calligraphy,' *Ars Orientalis* 21 (1991): 124 and 145, n. 33.
8. Abbott, 'Arabic Paleography,' 80.

9. Renard's designs for fonts made in 1806 for the Bibliothèque Nationale included both large (44-point) and small (14-point) Qarmathian kufic. See *Les Caractères de l'Imprimerie Nationale* (Paris, 1990), 192–3. Y. H. Safadi, *Islamic Calligraphy* (Boulder, CO, 1978), 12–13, gave two possible explanations for the origin of the term. The name, he suggested, may relate to al-Qarmati, adherents of a branch of Isma'ili Shi'ism that extended to many parts of the Islamic lands, including Khurasan, where the so-called Qarmathian script was thought to have been used. Safadi also gave a possible linguistic explanation, for the expression *qarmata fi'l-khatt* means to make the letters fine and to write the ligatures closer together.

The two explanations were already intertwined by the Saljuq period, as shown by Nizam al-Mulk's book of government or rules for kings (Nizam al-Mulk, *The Book of Government or Rules for Kings*, trans. Robert Darke [London, 1978], 208). In his chapter on the rise of the Qarmathians, the statesman explained that Muhammad, grandson of the sixth imam Ja'far al-Sadiq through his elder son Isma'il, had a *hijazi* page called Mubarak, who was a calligrapher in the fine script known as *muqarmat* and for this reason he used to be called Qarmatawayh. Mubarak disseminated the Isma'ili *dawa* around Kufa, and his adherents were called either Mubarakis or Qarmatis. Modern scholars like Heinz Halm, *The Empire of the Mahdi: The Rise of the Fatimids*, trans. Michael Bonner, *Handbuch der Orientalistik* 1:26 (Leiden, 1996), 27, n. 58, discount this explanation for the origin of the Isma'ilis, but it shows how the two derivations of the word Qarmathian were already conflated in medieval times.

10. Schroeder, 'What Was the *Badi'* Script?'
11. Mojtaba Minovi, 'The So-Called *Badi'* Script,' *Bulletin of the American Institute of Art and Archaeology* 5 (1939): 142–6; Eric Schroeder, 'The So-Called *Badi'* Script: A Mistaken Identity,' *Bulletin of the American Institute of Art and Archaeology* 5 (1939): 146–7.
12. S. M. Stern, 'A Manuscript from the Library of the Ghaznawid Amīr 'Abd al-Rashid,' in *Paintings from Islamic Lands*, ed. R. Pinder-Wilson (Columbia, SC, 1969), 18.
13. *Encyclopedia Iranica*, ed. Ehsan Yarshater (London and New York, 1985), 'Calligraphy,' citing Gulchin-i Ma'ani and others, though the author himself discounts this name, which is found in Ibn al-Nadim, *The Fihrist of al-Nadim: A Tenth Century Survey of Muslim Culture*, ed. and trans. Bayard Dodge (New York and London, 1970), 11.
14. Estelle Whelan, 'Writing the Word of God: Some Early Qur'an Manuscripts and their Milieux, Part I,' *Ars Orientalis* 20 (1990): n. 59; Estelle Whelan, 'The Phantom of *Hijazi* Script: A Note on Paleographic Method' (unpublished), n. 60. François Déroche, 'Collections de manuscrits anciens du Coran à Istanbul. Rapport préliminaire,' in *Études médiévales et patrimoine turc*, ed. Janine Sourdél-Thomine (Paris, 1983), 158–60, had already coined the name broken cursive for this distinctive script. Tabbaa, 'Transformation 1: Qur'anic Calligraphy,' n. 33 objected to the adjective broken because he thought it pejorative and liable to be confused with the script known as *shikasta*, Persian for broken (see Chapter 10). Neither objection is significant. As Whelan, 'Phantom,' n. 60 noted, broken is disparaging only when the context so dictates. The term broken plural, for example, is standard in Arabic linguistics and hardly implies that Arabic grammar is unsophisticated.
15. Déroche concurs. In his latest word on the subject, his article on

- 'Manuscripts of the Qur'ān' in *EQ*, 262–3, he opts for the name 'kufic naskhi,' because, as he notes, its basic shapes are closer to those used in round scripts.
16. François Déroche, 'Les manuscrits arabes datés du IIIe/IXe siècle,' *Revue des Études Islamiques* 55–7 (1987–9): 343–79.
 17. Whelan, in unpublished notes, suggested that this new script might be called *warraqi*, after the Arabic word for copyist. She made her suggestion on the basis of a passage by Ibn al-Nadim, one of our earliest sources about calligraphy (*Fihrist*, 15). The tenth-century chronicler mentions that until the early 'Abbasid period calligraphers continued to copy the Koran in kufic (traditional) script. Then there developed a script called 'iraqi, which was the *muhaqqaq* (meaning the 'perfect' or polished style?) known as *warraqi*. This latter script was elaborated and improved until it reached its culmination under the caliph al-Ma'mun (r. 813–33). *Warraqi* is the term used by modern Turkish scholars like M. Uğur Derman, *The Art of Calligraphy in the Islamic Heritage*, trans. Mohamed Zakariya and Mohamed Asfour (Istanbul, 1998) for the copyist's hand, while he reserves eastern kufic for the more calligraphic variety.
 18. Leiden University; ms. Or. 298. See *Levinus Warner and his Legacy: Three Centuries Legatum Warnerianum in the Leiden University Library* (Leiden, 1970), no. 57, and the catalogue entry available at <http://ub.leidenuniv.nl/bc/olg/selec/oldestmanuscript/object1.html>. The oldest complete codex in Arabic copied on paper, a manuscript dating to 848 recently discovered in the library of Alexandria, still awaits full publication; for a brief mention of it, see Malachi Beit-Arié, 'The Oriental Arabic Paper,' *Gazette du Livre Médiéval* 28 (Spring, 1996): 9–12; Jonathan M. Bloom, *Paper before Print: The History and Impact of Paper in the Islamic World* (New Haven, 2001), 58 and 242.
 19. The author, mentioned several times in Ibn al-Nadim's *Fihrist*, was born at Herat c. 770, the son of a Greek slave. Abu 'Ubayd studied in Kufa, Basra, and Baghdad; was appointed a judge of Tarsus in Cilicia; and then returned to Baghdad, where he worked under the patronage of 'Abdallah ibn Tahir, poet, general statesman, confidant of caliphs, and later governor and almost independent ruler of Khurasan.
 20. M. J. de Goeje, 'Beschreibung einer Alten Handschrift von Abû 'Uбайд's Garīb al-Hadith,' *ZDMG* 18 (1864): 781–807, partly reprinted in *Levinus Warner*, 75–6.
 21. Déroche, 'Les manuscrits arabes datés.' A papyrus in Heidelberg (PSR Arab 23) dated Dhu'l-Qa'da 227/July 844 with a history of David and a biography of the prophet, both by Wahb ibn Munabbih is the oldest known codex on papyrus, according to Déroche, 'Les manuscrits arabes datés,' no. 2. According to Yūsuf Rāḡib, 'L'écriture des papyrus arabes aux premiers siècles de l'Islam,' in *Les Premières Écritures Islamiques* [Aix-en-Provence, 1990], n. 24, it is also the oldest Arabic manuscript with vocalization, but in a more recent publication (Marie-Geneviève Guesdon and Annie Vernay-Nouri (eds), *L'art du livre arabe: du manuscrit au livre d'artiste* [Paris, 2001], no. 11), Marie-Geneviève Guesdon points out that it has no vocalization and some pointing, a description confirmed by the two photos. For a complete facsimile of the manuscript, see the second volume of R. G. Khoury, *Wahb b. Munabbih* (Wiesbaden, 1972).
 22. A. S. Atiya, *The Arabic Manuscripts of Mount Sinai* (Baltimore, 1955), nos. 151, 72, and 514, respectively.

23. Its binding also shows the reuse of materials: it is padded with cardboard made of a bundle of papyrus inscribed in Greek.
24. Déroche, 'Les manuscrits arabes datés,' 361; Whelan, 'Writing the Word of God,' 130, n. 59.
25. Déroche, 'Les manuscrits arabes datés,' no. 36 and fig. 17; Whelan, 'Writing the Word of God,' n. 96. The largest chunk, 187 folios from six different sections (3, 5, 9, 10, 18 and 19), is in the Chester Beatty Library (ms. 1417); for which see Arberry, *Koran Illuminated*, nos. 23–6. Six other folios from other sections were given by the dealer Kirkor Minassian to the Metropolitan Museum of Art (26.161.1) and the Library of Congress (LC1–85–154.82a-aa and AL 20). To judge from photographs, the Khalili Collection (Déroche, *Abbasid Tradition*, no. 79) owns another bifolio from this manuscript (KFQ26), which Déroche puts in his NS III category. This double page is CBL, 1417, fols. 33b–34a.
26. For example, Arberry, *Koran Illuminated*, nos. 23–6, and David James, *Qur'ans and Bindings from the Chester Beatty Library: A Facsimile Exhibition*, exhibition catalogue (n.p., 1980), no. 12, put the script in the category of broken cursive. Tabbaa, 'Transformation 1: Qur'anic Calligraphy,' 124, n. 39, followed Déroche and Whelan in designating the script as round.
27. The first line on folio 1b of the bifolio in the Khalili Collection, for example, contains the last word of Sura 70 and the gold rubric with the name of the next chapter (71; Nuh) and the verse count (thirty). The bifolio in the Metropolitan Museum of Art (26.161.3) has the verse count (165) for Sura 6 (al-An'am). Elaine Wright has confirmed for me that the pages in the Chester Beatty library are similar. The heading on folio 19a of CBL 1417a gives the name of the chapter (Al 'Imran, 3) and the verse count (200); the heading on folio 36b of CBL 1417c gives al-Anfal (8) and the verse count (76); and the heading on folio 1b of CBL 1417d gives the name of the chapter (al-Furqan, 25) and the verse count (77).
28. The Library of Congress holds 56 folios (CSM 83), also given by Minassian. The Khalili Collection (KFQ48; Déroche, *Abbasid Tradition*, no. 75), has another folio from this manuscript, which in turn is connected to twenty-three folios in the Bibliothèque Nationale (ms. arabe 382c, Déroche, *Manuscrits du coran* I, no. 259).
29. Coins issued under the 'Abbasids in the ninth century have a standard form, with legends in kufic including Koranic verses and the names of the caliph and his appointed heir. Governors with extraordinary independence were allowed, or assumed, the right to add their names as well. On coins minted in the eastern Islamic lands, these names were added in round script. A dirham minted at Balkh in 292/904–5, for example, has the name of the Banijurid governor Ahmad ibn Muhammad ibn Ahmad written in a round script (Sheila S. Blair, 'Legibility versus Decoration in Islamic Epigraphy: The Case of Interlacing,' in *World Art: Themes of Unity in Diversity; Acts of the XXVIth International Congress of the History of Art*, ed. I. Lavin [University Park and London, 1989], fig. 3). Similarly, a dinar issued at Nishapur in 305/917–18 (A. U. Pope and P. Ackerman (eds), *A Survey of Persian Art from Prehistoric Times to the Present*, repr. 1938–9 [Tehran, 1977], pl. 1480g) uses a round script for the name of the Samanid governor Nasr ibn Ahmad. Adding the governor's name in a round script was a way to distinguish his name from those of the other rulers written on the coin. Moreover, the governor's name was the part of the legend added locally to a design supplied by the central administration.

30. One example is the commemorative text carved in the name of the Buyid 'Adud al-Dawla at Persepolis in Safar 344/955. See Sheila S. Blair, *The Monumental Inscriptions from Early Islamic Iran and Transoxiana*, Supplements to Muqarnas (Leiden, 1992), no. 6. The four-line inscription is carved next to Achaemenid and Sasanian inscriptions in the palace of Darius. The text relates that 'Ali ibn al-Sari, the scribe (*al-katib*) from Karaj, read the earlier texts to 'Adud al-Dawla. The role of the scribe who drew up the inscription is also clear from its style. For the most part, the letters are square, but three traits – dots over some of the letters, the variety of body shapes, including four types of final *ya'*, and the spur added to the bottom of *alif* in independent or final form – show his training as a copyist who customarily wrote in a round hand. When designing a text to be carved in stone, he tried to adopt a more angular monumental style, but features of his regular round hand show through.
31. The single bifolio survives in the Museum of Turkish and Islamic Art, Istanbul (no. 12800). See Déroche, 'Collections de manuscrits anciens du Coran à Istanbul,' no. I and pl. IVb. A note on the recto of the first page (near the beginning of the regular *juz'* 6), written in the same ink and hand as the rest of the text, contains an endowment notice set inside a gold braid which extends into the margin with a gold palmette. The text says that these parts (*ajza'*) of the Koran endowed in God's path were copied by Shanbak (or Shanbal?) ibn Muhammad ibn 'Abdallah ibn Shanbak (or Shanbal?). The text is copied in a round style similar to that used in the other two manuscripts, though more attenuated and crowded. *Alif* has a hook to the left, and the tails of the letters *nun* and final *ya'* are deeply curved. Shanbak also shows a tendency to slant the letters in individual words. Letters are pointed but not vocalized. Individual verses are not marked, but groups of five verses receive a gold kufic *ha'*.
32. On the various functions of Koran codices, see François Déroche, *Le livre Manuscrit arabe: préludes à une histoire* (Paris, 2004), 24–35.
33. Whelan, 'Writing the Word of God.'
34. CBL, ms. 4000; Arthur J. Arberry, *The Chester Beatty Library: A Handlist of the Arabic Manuscripts* (Dublin, 1955–66), 4:86. Copied in black ink on thirty-one small folios of brown paper, the text contains seventy-seven sections of varying length, mainly apothegms touching on the main aspects of Sufi teaching. The manuscript is not a rough draft or brouillon, but the author's fair copy, with several cancellations and marginal insertions. See Arthur J. Arberry, 'The *Mawāqif* of al-Niffarī,' *Journal of the Royal Asiatic Society* (1970): 404–6.
35. A large fragment of 170 folios is in the Chester Beatty Library (ms. 1434; Arberry, *Koran Illuminated*, no. 35). Another sixteen folios, including the dated colophon, belong to Istanbul University (A6758; one double page is published in Ayman Fu'ad Sayyid, *al-Kitāb al-'arabiyya al-makḥṭūṭ wa 'ilm al-makḥṭūṭāt* [Cairo, 1997], pl. 5). In unpublished notes, Rice also identified a fragment from the shrine at Ardabil. See Whelan, 'Writing the Word of God,' n. 97.
36. Tabbāa made this point as well in 'Transformation 1: Qur'anic Calligraphy.'
37. Déroche's chart VI (*Abbasid Tradition*, Table VI, 136–7), compares ten homographs, or letter shapes, from manuscripts in broken cursive with those in kufic codices.
38. EI/2, 'al-Niffarī.' He spoke of *waqfa* (standing), during which time he was addressed by God, who inspired him to write down his words.

- Al-Niffari's work is thus a replica of Muhammad's experience, symbolized by *wuquf*, the place of standing at 'Arafa and the culmination of the hajj in which the pilgrim recalls the Prophet's farewell journey. Al-Niffari considered letters a veil that the mystic must penetrate, for as long as one remains bound to the letters, he was fettered by idols. See Annemarie Schimmel, *Mystical Dimensions of Islam* (Chapel Hill, 1975), 80–2 and 411.
39. 'Ali ibn Shadhan also used the epithet al-Bayyi', presumably *al-bayyi'* (the tradesman or middleman), an unusual epithet also used by 'Umar ibn Fadl ibn Yusuf, who signed a bronze pen box made in 542/1148, probably made in north-eastern Iran (Hermitage CA-12688). The name of the copyist's father, Shadhan, was common in Iran in the eleventh and twelfth centuries (Blair, *Monumental Inscriptions*, 200).
 40. Istanbul, Suleymaniye Library, Sehîd Ali Pasa no. 1842; dated Jumada I 376/November 986. The *Kitab akhbar al-nahwiyyin al-basriyyin* or *Kitab tabaqat al-nuhat* was composed by the judge and grammarian Abu'l-Sa'id al-Hasan al-Sirafi (d. at Baghdad on 3 February 979). Al-Sirafi, in addition to teaching a wide range of subjects, was himself a professional copyist. Later sources describe how he copied some ten folios a day, earning ten dirhams for living expenses (*EI*/2: 'al-Sirafi'). F. Krenkow, editor of al-Sirafi's work on grammarians, identified the copyist 'Ali ibn Shadhan as a transmitter of hadith mentioned by Ibn Hajar al-'Asqalani. See Tabbaa, 'Transformation 1: Qur'anic Calligraphy,' n. 47; Şalâh al-din al-Munajjid, *al-Kitâb al-'arabî al-makhtûṭ ilâ'l-qarn al-'âshir al-hijrî* (Cairo, 1960), pl. 22; Estelle Whelan, 'Early Islam: Emerging Patterns (622–1050),' in *Islamic Art and Patronage: Treasures from Kuwait*, ed. Esin Atıl (New York, 1990), fig. 9; Derman, *Art of Calligraphy*, no. 10. Derman noted that this manuscript is the first dated example to replace the dots used for vocalization with the vowel markers that are still used today.
 41. For example, an elaborately decorated fragment dated 389/998–9 (Ramazân-'alî Shâkirî, *Ganj-i hizâr sâla-yi kitâbkhâna-yi markazî-yi âstân-i quds-i rizavî qabl wa ba'd az inqalâb* [Mashhad, 1367/1989], 65) was penned by al-'Abbas ibn Muhammad ibn al-'Abbas *al-musahifi* (the copyist of Koran manuscripts) al-Qazvini at Rayy for the treasury of the mother of the chief commander (*amir al-umara*). The latter may well be Abu'l-Qasim 'Ali Simjuri, last of the Simjurid governors of Khurasan, who himself had made the first surviving endowment to the shrine, a fragment from a kufic Koran endowed in 363/973–4 (ms. 3004; Shâkirî, *Ganj-i Hizar Sala*, 30). Another fragment in the shrine collection, containing *juz'* 13 written in four lines of broken cursive per page on 142 folios (no. 96; Ahmad Gulchîn-i Ma'ânî, *Râhnamâ-yi ganjîna-yi qur'ân* [Mashhad, 1347/1969], no. 17; Shâkirî, *Ganj-i Hizar Sala*, 31 and 68) was endowed there in Rabi' I 393/January–February 1003 by Abu'l-Qasim Mansur ibn Muhammad ibn Kathir, member of a well-known family from Khurasan and vizier and head of the bureaucracy there under the Ghaznavid sultan Mahmud. The date in the endowment provides a *terminus ad quem* for the manuscript, and the patron's affiliation suggests an attribution to eastern Iran. The decoration of these pages, in turn, relates to an undated fragment with *juz'* nine written in six lines of broken cursive (Paris, BN, ms. arabe 7263; Francis Richard, *Splendeurs persanes: manuscrits du XIIIe au XVIIe siècle* [Paris, 1997], no. 1bis).
 42. Salah al-Din Munajjid (*Al-Kitab al-'Arabi*) gives examples of several other manuscripts written in the tenth century. A few in broken

cursive are specifically dated. One in Tehran (pl. 19) is the final page of a treatise on predestination, *Risala fi'l-hidaya wa'l-dalala*, transcribed by 'Ali ibn Tahir ibn Sa'd in 364/974. At the bottom is the attestation of the author, the Buyid vizier 'al-Sahib ibn 'Abbad, dated two years later. His broken cursive is as stately and mannered as that of the transcriber and attests to the author's training as a secretary. Another manuscript in Istanbul (TKS, Ahmad III 2366, pl. 21) is a copy of Ibn al-Nahhas's collection of pre-Islamic poems, *al-Mu'allaqat*, dated 371/981–2. It too shows the graceful broken cursive that was already standard by the end of the tenth century.

43. Whelan, 'Writing the Word of God,' 118–19. One example is the endowment note at the top of a folio from a manuscript endowed to the Great Mosque of Damascus in Dhu'l-Qa'da 298/July 911 by 'Abd al-Mun'im ibn Ahmad (figs. 15–16). Whoever added the brief note tried to imitate the kufic script used for the original text, but the letters often betray traces of a round hand. For example, the strokes in the note, unlike those used for the text, vary in thickness, with a marked contrast between thick letter and thin baseline. The tail of *sin* ends with a swooping curve. The upright strokes of the two *lams* in *allah* have little tails or serifs. In other longer notices, *alif* consists of a straight vertical stroke, without any bend to the right at the bottom.
44. V. A. Krachkovskaya, 'Evolutsiya Kuficheskovo Pis'ma v Sredney Azii,' *Epigrafika Vostoka* 3 (1949): 3–27.
45. They name not only the reigning caliph and sometimes the heir apparent, but also the vizier in office and the attendant in charge of the factory.
46. Inscriptions on several *tiraz* woven for the 'Abbasid caliph al-Muktafi (r. 902–8) show a particularly distinct type of broken cursive. Florence Day, 'Dated *Tiraz* in the Collection of the University of Michigan,' *Ars Islamica* 4 (1937): 426–7, singled out the inscription on one piece dated 293/905–6 in the collection of the University of Michigan as remarkable in combining circles, sweeping curves, sharp angles, triangles set on a corner, strong tall verticals, and crisp pointed serifs.
47. These pieces can be found in virtually every major collection of Islamic art. Among the many pieces of this slipware that survive, only one has a historical inscription, a pen box in the Hermitage (no. 1332–57) with the name Muhammad ibn Fadl (Krachkovskaya, 'Kuficheskovo Pis'ma,' fig. 4). For an analysis of the distinctive knotted kufic found on some of them, see Lisa Volov (Golombek), 'Plaited kufic on Samanid Epigraphic Pottery,' *Ars Orientalis* 6 (1966): 107–34.
48. The manuscript is now in the Qarawiyyin Mosque Library in Fez; see David Wasserstein, 'The Library of al-Hakam II al-Mustansir and the Culture of Islamic Spain,' *Manuscripts of the Middle East* 5 (1990–1): 99 and n. 5; Jerrilynn D. Dodds (ed.), *Al-Andalus: The Art of Islamic Spain* (New York, 1992), 277, fig. 3.
49. In addition to two quires in the Khalili Collection (QUR261 and QUR368; Déroche, *Abbasid Tradition*, no. 81), another fragment in the Nurosmaniye Library, Istanbul (MS 23) has an elaborate inscription on folio 1b stating that the manuscript was copied at Madinat al-Siqilliyya [that is, Palermo] in 372/982–3 (François Déroche, 'Tradition et innovation dans la pratique de l'écriture au Maghreb pendant les IVe/Xe siècles,' in *Afrique du Nord antique et médiévale. Numismatique, langues, écritures et arts du livre, spécificité des arts figurés [Actes du VIIe colloque internationale sur l'histoire et l'archéologie de l'Afrique du Nord]*, ed. S. Lancel [Paris, 1999], 237; François Déroche, 'Cercles et entrelacs: format et décor des Corans maghébins médié-

- vaux,' *Académie des Inscriptions and Belles lettres, Comptes Rendues*, March 2001, 593–620). Déroche put this manuscript in his NS III category, presumably because the variation between thick and thin strokes is not as marked. This double page is Khalili Collection, QUR261, fol. 8b–9a.
50. See Chapter 4 for details of the various *abjad* systems used in the east and west.
 51. Yasin Dutton, 'Red Dots, Green Dots, Yellow Dots and Blue: Some Reflections on the Vocalisation of Early Qur'anic Manuscripts (Part II),' *Journal of Qur'anic Studies* 2, no. 1 (2000): 16.
 52. Déroche, 'Cercles et entrelacs.'
 53. Several scattered folios were preserved in the library of the Great Mosque of Kairouan. See B. Roy and P. Poinssot, *Inscriptions arabes de Kairouan* (Paris, 1950–8), nos. 9b and 9c. Déroche, *Le Livre Manuscrit arabe*, 48, has suggested that an examination of the pages shows that, despite the claims in the colophon, the text is a collective work, although he does not specify why.
 54. This type of final *ya'* can be seen on the folio in the Nurse's Koran illustrated in Lings and Safadi, *The Qur'ān*, no. 25.
 55. BN, Supp. grec 911; Paul Géhin, 'Un manuscrit bilingue grec-arabe, BnF, supplément grec 911 (année 1043),' in *Scribes et manuscrits du Moyen-Orient*, ed. François Déroche and Francis Richard (Paris, 1997), 161–75. According to its two colophons, the same scribe Euphémios transcribed both texts in 1043. The particular style of Greek used, known as the 'ace of spades,' allowed Géhin to localize the small (17 × 14 cm) and provincial manuscript to southern Italy rather than the Levant, the other area where bilingual Greek-Arabic texts were copied. Various aspects of the Arabic script confirm the localization to southern Italy. Euphémios used a distinctive style of broken cursive, especially for final *nun* and *fa'/qaf*. *Nun* has a long bent tail similar to the one used in the Nurse's Koran, but of uniform thickness. Medial *fa'/qaf* resembles a diamond. Final *fa'* ends with a short horizontal tail, whereas final *qaf* has the same long tail as *nun*. The system of pointing also points to the Maghrib. The letter *fa'* is pointed with one dot below and *qaf* with one dot above, the system that remains typical in the Maghrib in later centuries.
 56. Copy transcribed by Muhammad ibn Ahmad ibn Yasin in Ramadan 383/October–November 993; TIEM 453–6; MMA 40.164.5r; Khalili Collection KFQ90; see Déroche, *Abbasid Tradition*, no. 83.
 57. In addition to the copy transcribed by al-'Abbas ibn Muhammad ibn 'Abbas in 389/998–9 (see above, note 41), there is another copied by 'Ali ibn Muhammad al-Muhaddith in Jumada I 419/May–June 1028 in the Haydariyya Shrine at Najaf. See Najjī Zayn al-dīn, *Badā'i' al-Khaṭṭ al-'Arabī* (Baghdad, 1972), fig. 18.
 58. Borne by Muhammad ibn 'Ali ibn al-Husayn whose copy was finished in Safar 388/February 998; Istanbul, TKS H22; Tabbaa, 'Transformation 1: Qur'anic Calligraphy,' figs. 10–11. The word *al-saffar*, meaning copersmith, became the name of the dynasty that ruled eastern Iran from 861 to 1003 because it was the profession of the founder, Ya'qub ibn al-Layth.
 59. Borne by Abu Bakr 'Abd al-Malik ibn Zar'a ibn Muhammad whose copy was finished on 6 Dhu'l-Hijja 394/24 September 1004; Istanbul, TKS Y-752; Tabbaa, 'Transformation 1: Qur'anic Calligraphy,' figs. 16–17. *Rudhbar*, a Persian word meaning a district lying along or bisected by a river, was a common toponym in Islamic Persia. The Rudhbar along

- the Helmand river in south-western Afghanistan was famous in early Islamic times. The most famous site of this name in medieval times was the one in Gilan province that became a center for Isma'ili activity. See *EI*/2, 'Rūdhbār.'
60. Balkh, known as the 'mother of cities' and now in Afghanistan, gained fame as the entrepôt at the crossing of routes east-west from Iran to Central Asia and China and north-south from Afghanistan to India.
 61. Illustrated in Tabbaa, 'Transformation 1: Qur'anic Calligraphy,' fig. 16.
 62. This point is often made; see, for example, Tabbaa, 'Transformation 1: Qur'anic Calligraphy,' 124, n. 35 and *Gulchini*.
 63. Al-Nadim, *Fihrist*, 17.
 64. Al-Nadim, *Fihrist*, 273–7.
 65. Ibn Muqla is said to have set forth his rules of calligraphy in a small treatise entitled *Risalat al-khatt wa'l-qalam* (Cairo, DK, no. 4). Although sometimes accepted as his work (e.g., *EI*: 'Calligraphy,' IV:680), the treatise has never been edited or published, and scholars like François Déroche, *Manuel de codicologie des manuscrits en écriture arabe* (Paris, 2000), 230 and n. 2 (citing a 1974 doctoral thesis at Cologne University that was unavailable to me), are skeptical of its authenticity. Until a critical edition is published and the authenticity of this treatise verified, it is difficult, if not methodologically unsound and premature, to base any arguments on it.
 66. Franz Rosenthal, 'Abū Haiyān al-Tawhīdī on Penmanship,' *Ars Islamica* 13–14 (1948): 1–30.
 67. The translator Franz Rosenthal evidently thought so too, as he included this long passage as part of the previous section.
 68. Ibn Khallikan 1:191 and Hajji Khalifa 3:151, both cited in Abbott, *Rise*, 33. Hajji Khalifa's phrase *al-khatt al-badī'* gave rise to Schoeder's misapprehension that this was the name of a new script; see above, note 10.
 69. Abbott, *Rise*, 33–6.
 70. We have at least one case in which we can compare an actual example with what a Mamluk writer, in this case Ibn Hajar al-'Asqalani (1372–1449), called *mansub*: the stylized kufic used for a caption to an illustration in a copy of al-Hariri's *Maqamat* (Assemblies) penned and illustrated by Ghazi ibn 'Abd al-Rahman al-Dimishqi (BL Or. 9718; L. A. Mayer, 'A Hitherto Unknown Damascene Artist,' *Ars Islamica* 9 [1942]: 168). See further, Chapter 8, note 49.
 71. The Chester Beatty Library (ms. 1644), for example, has two folios from a Koran codex with 17 lines per page that have been mounted in an album of calligraphy, with a note in an eighteenth-century hand claiming that it was written by Ibn Muqla (James, *Qur'ans and Bindings*, no. 17). Tabbaa, 'Transformation 1: Qur'anic Calligraphy,' n. 35, lists other examples.
 72. Rampur, Raza Library, ms. 6093D; Imtiyaz Ali Arshi, *A Catalogue of the Arabic Manuscripts in the Raza Library, Rampur* (Rampur, 1963), no. 3. This final double page (fol. 314a–315b) was published by Abbott, 'Arabic Paleography,' fig. 2, from a photograph taken by Harrie G. Moore, lecturer for the Canadian Pacific steamship line and an amateur collector of Oriental manuscripts. One page is also posted on their website: www.razalibrary.com/frame.htm.
 73. The text in the boxes, which begins with the word 'amal (work of), is written in a shorter and more crowded hand flanked by knotted ornaments not used elsewhere; the text proper is also more crowded.
 74. D. S. Rice, *The Unique Ibn al-Bawwāb Manuscript in the Chester Beatty Library* (Dublin, 1955).

75. Rice, *Ibn al-Bawwab*, 5, citing Yaqut, *Irshad*, 5:445 and Ibn Kallikan, 1:492.
76. The introduction to the epistle on penmanship is preserved by Yaqut, *Irshad*, 5:451–2, cited in Rice, *Ibn al-Bawwab*, 5. The beginning of the poem is also translated, in a slightly different way, in Mohamed Zakariya, *The Calligraphy of Islam: Reflections on the State of the Art* (Washington, DC, 1979), 14.
77. *The Muqaddimah: An Introduction to History*, trans. Franz Rosenthal (New York, 1967), 2:388–9. Parts of Ibn al-Bawwab's descriptions of the scripts are also included in the treatise on calligraphy written at the beginning of the sixteenth century by the copyist al-Tayyibi for the library (*khazina*) of Qansawh al-Ghuri, last Mamluk sultan of Egypt and Syria (see Chapter 8).
78. CBL, ms. 1431. The manuscript was the subject of an admirable and exhaustive monograph by Rice, *Ibn al-Bawwab*. In the third chapter (pp. 19–28), Rice analyzed the five other manuscripts with colophons naming Ibn al-Bawwab, suggesting that they were all either tenth- or eleventh-century manuscripts to which Ibn al-Bawwab's signature was added (or in one case a copy of such a manuscript) or later fakes or forgeries. The first is a copy of the poems of Salama ibn Jandal, see below. The second (TIEM 2015) is a fourteenth-century Mamluk copy of the first. The third manuscript is a small Koran codex (TIEM 449), with a colophon naming a copyist with the *kunya* Abu'l-Qasim and part of the date 400, but the colophon has been crudely altered to give the name Ibn al-Bawwab, the place Baghdad, and the date 401/1010. Rice dismissed the fourth and fifth manuscripts – a selection of passages from al-Jahiz's *Kitab al-hawayan* (TIEM 1024) and a copy of the poems of al-Hadira (BL Add. 26,126) – as more blatant forgeries made in the fourteenth century. None of these manuscripts is modern. Rice's careful study shows that copies of Ibn al-Bawwab's work were already treasured (and copied) by the fourteenth century.
79. One method of comparison is to count the number of lines in the two manuscripts. According to the page numbers scribbled at the top, the copy attributed to Ibn Muqla has 437 pages, each with 23 lines, giving a total of 10,051 lines. The text in the copy by Ibn al-Bawwab begins on folio 9v and ends on folio 283a, so there are 548 pages of text, each with 15 lines, giving a total of 8,220 lines, about 82 per cent of the earlier volume. Each line in the copy by Ibn al-Bawwab therefore contains about 18 per cent more text. Another method of comparison is to count the number of letters per line: each line in the copy attributed to Ibn Muqla contains some thirty-two letters, while the copy by Ibn al-Bawwab has thirty-nine.
80. Such an extended basmala is rarely found in Koran codices on parchments. It is not used, for example, in the copy attributed to Ibn Muqla (Figure 5.7), nor in several undated examples in the Khalili Collection (QUR286 and 305; Déroche, *Abbasid Tradition*, nos. 78 and 80. There are occasional exceptions, such as a manuscript in Istanbul (TKS R-38; Tabbaa, 'Transformation 1: Qur'anic Calligraphy,' fig. 14).
81. Examples from the Topkapı Library include HS 22 dated 388/998 and Y-752 dated 394/1004–5 as well as the undated R-10, all illustrated in Tabbaa, 'Transformation 1: Qur'anic Calligraphy,' figs. 10, 16, and 19. This form is also found in the manuscript made at Isfahan in Ramadan 383/October–November 993, for which see Déroche, *Abbasid Tradition*, no. 83, as well as many other undated examples in the Khalili Collection. This extender is not used in the first

- surviving example on paper copied by 'Ali ibn Shadhan in 361/972 (Figure 5.3).
82. These dots are clearest when the verse ends at the left margin, as in lines two, nine, eleven, etc. on the page illustrated here (Figure 5.8). On the third line, Ibn al-Bawwab penned the last two letters in the final word of verse 61 (*waw* and *nun*) in the margin and added the blue dots there.
 83. The statement is somewhat perplexing, as the text actually follows the verse count of the Basran Abu 'Amr (Dutton, 'Red Dots II,' 17). Abu 'Amr's reading was widespread, but the discrepancy between what the frontispiece says and what the text actually contains might add weight to the suspicions of Richard Ettinghausen, the renowned scholar of Islamic art, about the authenticity of this manuscript; see Arberry, *Koran Illuminated*, xix. Nevertheless, this manuscript, like one attributed to Ibn Muqla in Rampur, remains the best surviving example of this famous calligrapher's style.
 84. The chapter heading here gives the name (Surat al-Qamar; The Moon, 54) and the verse count (55 verses), with the place of revelation (Mecca) written in the same script in the margin below the roundel marking the place of prostration. The verse count is given, notably, in the archaic ordering of hundreds, tens, and units (here, *khamsum wa khamisa*, fifty and five) used in Whelan's Group 1 manuscripts (see Chapter 4). Finding it here in a manuscript made at Baghdad in 391/1000-1 adds weight to Whelan's attribution of that group to Iraq.
 85. It can also assume the form of a closed circle that it has in *naskh*, as in the word *makkiyya*, the place of revelation written in gold in the margin of Figure 5.8.
 86. The colophon to a small Koran manuscript in the British Library (Add. 7214; Pope and Ackerman, *Survey*, pl. 328; Rice, *Ibn al-Bawwab*, pl. XIII; Lings and Safadi, *The Qur'an*, no. 54; Tabbaa, 'Transformation 1: Qur'anic Calligraphy,' fig. 28) says that transcription was finished in Jumada I 427/March 1036 by Abu'l-Qasim Sa'id ibn Ibrahim ibn 'Ali ibn Ibrahim ibn Salih *al-mudhahhib* (the gilder). The colophon adds that the copyist was the son of a disciple of al-Jawhari (d. c. 1009), the celebrated lexicographer of Turkistani origin who taught Arabic and particularly calligraphy in Damghan and Nishapur. Despite his epithet, the copyist did not work alone, for as Rice pointed out (p. 25), a note on one illuminated folio (2b) says that Abu Mansur Naji' ibn 'Abdallah was responsible for the illumination (*tadhhib*).
 87. According to an anonymous treatise that Rice considered an early commentary on the subject, Ibn al-Bawwab was a master of many round scripts, including the six that later came to be grouped as the Six Pens as well as others such as *hawashi* (literally, glosses) and gold script (*qalam al-dhahab*). He is also said to have given distinction to textual and Koranic scripts (*mayyaza qalam al-matn wa'l-masahif*) and wrote kufic script. See Rice, *Ibn al-Bawwab*, 7, citing an anonymous treatise in Berlin (We 167, fols. 43-50). The treatise was published by W. Ahlwardt, *Verzeichniss der Arabischen Handschriften* (Berlin, 1877), 1, no. 7. Although the treatise is unsigned and undated, Rice judged the clarity and simplicity of its style signs of antiquity.
 88. Rice actually used the form *naskhi*, the form used by Abbott, *Rise*, but most scholars prefer the noun *naskh*. He also wondered whether the gold script used for the chapter headings might be the *qalam al-dhahab* mentioned in the anonymous text on calligraphy.
 89. See, for example, Tabbaa, 'Transformation 1: Qur'anic Calligraphy' and Solange Ory's article, 'Calligraphy' in *EQ*.

90. See, for example, the discussions in Safadi, *Islamic Calligraphy*, 62; Ḥabīballāh Faẓā'ilī, *Atlas-i khatt: taḥqīq dar khattūt-i islāmī* (Tehran, 1391/1971), 284–391.
91. The root *thalatha* means to take or be a third of something; Edward William Lane, *An Arabic-English Lexicon* (London and Edinburgh, 1863), 1:346. The second, intensive form *thallatha* means to triple.
92. Abī al-'Abbās Aḥmad ibn 'Alī al-Qalqashandī, *Subḥ al-a'shā fī šin'at al-inshā* (Cairo, n.d.), 352; see also Abbott, *Rise*, 31–2, and Dodge's note in his translation of Ibn al-Nadīm, *Fihrist*, 13, n. 23.
93. Priscilla P. Soucek, 'The Arts of Calligraphy,' in *The Arts of the Book in Central Asia: 14th–16th Centuries*, ed. Basil Gray (Boulder, CO, 1979), 14 and n. 33, citing Faẓā'ilī, *Atlas-i khatt*, 196–7 and 231.
94. The pen was measured by animal hairs (*sha'r al-birdhawn*), probably the hairs of a donkey. A pen twenty-four hairs wide was used to write the large script known as *tumar*, often used for the protocol (see Chapter 2). In descending order, the next sizes were *thuluthayn* (literally two-thirds and hence sixteen hairs), *nisf* (half, twelve hairs) and *thuluth* (one-third, eight hairs).
95. See, for example, the canon of proportion reconstructed by Ahmed Moustafa reproduced in Soucek, 'Calligraphy,' pl. III.
96. See the lengthy discussion in Abbott, 'Arabic Paleography,' 87–92, and the various charts and lists in Abbott, 'Arabic Paleography,' Table 1; al-Nadīm, *Fihrist*, 13, n. 23; and Tabbaa, 'Transformation 1: Qur'anic Calligraphy,' 123, none of which cogently adds up to the twenty-four scripts mentioned by Ibn al-Nadīm at the end of the passage. The most recent study, Vlad Atanasiu, 'Les réalités subjectives d'un paléographe arabe du Xe siècle,' *Gazette du Livre Médiéval* 43 (Autumn, 2003): 14–22, argues that Ibn al-Nadīm was classifying the scripts not only by their visual appearance, but also according to social, codicological, and genealogical principles, thereby making a parallel between writing and society and projecting an idealized conception of the world and society on writing. This essay is the most provocative on the subject, attempting to get behind the reasoning for Ibn al-Nadīm's classifications and put the tenth-century scholar's work in context, but it too ends up with only twenty-one scripts. Ibn al-Nadīm's text may be corrupt, and so far as it stands, it remains difficult to interpret.
97. Faẓā'ilī, *Atlas-i khatt*, 304. The traces of *thuluth* include the upturned tails on *ra'*, as in *mustaqqirun* and *muntashirun*, the last words before the marginal blue dots in the third and sixth lines of Sura 54 (Figure 5.8). Derman, *Art of Calligraphy*, 202, noted that the script was actually *rayhan*. Mohamed Zakariya repeated this information in his lecture, 'Criticism in Islamic Art-The Case of Calligraphy,' delivered at the colloquium 'Expanded Frontiers,' held at Virginia Commonwealth University on November 6, 2004, and slated for publication. His colleague and fellow-speaker Nabil Safwat concurred.
98. Al-Nadīm, *Fihrist*, 261.
99. Compare, for example, the same phrase written in *rayhan* and *naskh* by Zakariya, *Calligraphy*, 23 and 25, or the charts of the individual letters forms drawn by Ḥabīballāh Faẓā'ilī, *Ta'lim-i khatt*, 7th edn (Tehran, 1374/1995–6), 312–13, and reproduced in *Elr*, 4:682–3. Faẓā'ilī's chart of *naskh* is also shown here as Figure 13.2.
100. S. M. Stern, *Fatimid Decrees: Original Documents from the Fatimid Chancery*, All Souls Studies (London, 1964), 126–8; *El*2, 'Tawqī'. 'Tawqī' was one of two terms used for the official signature in early Islamic times. The other, *'alama*, which originally meant distinctive

sign, was common in Fatimid Egypt and the western Islamic lands, whereas *tawqi* was standard in the east. The Ottomans later used a third term, *tughra*, which was also an emblem like the *tamgha* introduced by the Turkish dynasties which came to power in the Islamic lands from the tenth century. See Chapter 11 and Figure 11.15.

101. The Ghaznavid historian Abu'l-Fadl Bayhaqi, for example, mentions a letter that the 'Abbasid caliph al-Qa'im sent the Ghaznavid ruler Mas'ud that containing the caliph's signature (*tawqi*), 'my aid is desired of God' (*i'tidad bi'llah*).
102. In other *sura* headings, the *alif* of *ayat* is connected to the last word of the verse count as in the previous heading for Surat al-Tur (folio 241a), where the 'ayn of *arba* connects to the *alif*.
103. If we insist on labeling his scripts, the most accurate might be a text script merging *naskh* with *rayhan* and a touch of *thuluth* and a display script based on *thuluth* but verging toward *tawqi*. Such a description is accurate, but sounds more like a recipe in a cookbook.
104. See, for example, the manuscripts dated in the early eleventh century illustrated in Tabbaa, 'Transformation 1: Qur'anic Calligraphy,' figs. 24 and 28–30.
105. Istanbul, TKS Baghdad 125. For the manuscript, see Rice, *Ibn al-Bawwab*, 19–21; Munajjid, *Al-Kitab al-'Arabi*, pl. 25; Derman, *Art of Calligraphy*, no. 14. For the poet, see EI/2, 'Salama b. Djandal.' His *diwan* has been edited by Fakhr al-din Qabawa (ed.), *Dīwān Sālama Ibn Jandal* (Aleppo, 1387/1968).
106. Anxious to prove that the subject of his own monograph, Ibn al-Bawwab's Koran manuscript in the Chester Beatty Library, was the only authentic work by this star calligrapher, Rice discounted the authenticity of the colophon on several grounds. Noting the half century gap between the date in the colophon and the date supplied by the ex-libris, Rice argued that the colophon had been added, although he did not specify when. He also suggested that the flashy gold colophon was not similar to the gold opening line of text. Derman, *Art of Calligraphy*, no. 14, a noted Turkish authority on calligraphy who valued the poetic manuscript as part of his national patrimony, countered Rice's reasoning, arguing that it was the ex-libris that had been added a half century after transcription and that indeed colophon and opening line differed because they were different scripts. Derman did not explain, however, why someone rubbed out the part of the ex-libris in *naskh*, but left the line in broken cursive, probably because that script had become too difficult to read. This must have been done by a later owner who did not want his predecessor's ownership known.

All scholars agree, in any case, that the manuscript of Salama's poetry is a fine example of a luxury manuscript made in the eleventh century and one that itself served as a model for another copy, including the colophon, made as early as the fourteenth century. (The second copy of Salama's poems is contained in an anthology of three works; TIEM 2015; see Rice, *Ibn al-Bawwab*, 22–4.)

107. Munajjid, *Al-Kitab al-'Arabi*, pl. 25; Qabawa, *Dīwān Sālama Ibn Jandal*, pl. 4.
108. On the term, see Adam Gacek, *The Arabic Manuscript Tradition, a Glossary of Technical Terms and Bibliography*, Handbuch der Orientalistik (Leiden, 2001), 112. Such marks had been used at least since the tenth century, as in the copy of al-Mubarrad's grammar copied by Muhalhil ibn Ahmad at Baghdad in 347/958 (Istanbul, Koprülü Library 1508; Ramazan Şeşen, 'Les caractéristiques de l'écriture de

- quatre manuscrits du IV^e s. H./X^e s. AD,' in *Les Manuscrits du Moyen-Orient: essais de codicology et paléographie*, ed. François Déroche [Istanbul/Paris, 1989], pl. IVb; Derman, *Art of Calligraphy*, no. 8).
109. The word *kitab*, which later came to designate the Koran and is usually translated as book or scripture, had not yet taken on this meaning when Salama was writing. On the word, see Daniel A. Madigan, *The Qur'ān's Self-Image: Writing and Authority in Islam's Scripture* (Princeton, 2001) and his article 'Book' in *EQ*, 1:242–51.
110. Elsewhere, Salama ibn Jandal also mentions other elements of writing, such as inkwells (*dawat*) and parchment (*jidda muhraq*); poem 3, verse 2; Qabāwa, *Diwān Sālama Ibn Jandal*, 156.
111. Al-Yazidi (d. 922) was a friend of al-Jahiz; see al-Nadim, *Fihrist*, 1049.
112. Compare this arrangement to the more logical one in the printed edition (Qabāwa, *Diwān Sālama Ibn Jandal*, 208–9), where Salama ibn Jandal's concluding *qasida* is written in large bold script and the entire chain of transmission is written in the smaller script.
113. Rice called the smaller script *naskh*, but these features make Derman's identification of *rayhan* more likely.
114. Lane, *Lexicon*, 2:605–10.
115. For example, in his manual for secretaries, *Mawadd al-bayan*, 'Ali ibn Khalaf, an eleventh-century secretary in the Fatimid chancery who was one of the main sources for the Mamluk chronicler al-Qalqashandi, made the distinction between careful (*muhaqqaq*) and careless (*mutlaq*) execution. The treatise survives only in an incomplete manuscript in Istanbul (TKS Fatih 4128), but was used by Stern, *Fatimid Decrees*, 105. The Fatimid secretary reports:

The exact script (*muhaqqaq*) is such that its letters are precisely shaped if taken one by one. It is nobler than the negligent (*mutlaq*) and is only used for important matters, such as appointments, registrations (*isjalat*), and grants of property, which are meant to be kept for generations, and letters addressed by kings to kings which must indicate the importance of the sender and the addressee. Negligent script (*mutlaq*) is such that its letters run into each other and are joined together; it is derived from the exact script and used in order to expedite important correspondence which must not be delayed, and for common affairs. It appears more pleasing to the eye as long as one looks at it as a whole, but as soon as the single letters are distinguished and are compared with the letters of the exact script, it becomes manifest how great the difference is.

Ibn al-Nadim uses the term *muhaqqaq* in describing the origins of Arabic writing according to sources other than Ibn Thawaba. Ibn al-Nadim says that during the 'Abbasid period there developed a style called the *'iraqi*, which was the formal type (*muhaqqaq*) known as *warraqi*. Al-Nadim, *Fihrist*, 15.

116. Ibn al-Nadim (*Fihrist*, 16), for example, lists *muhaqqaq* as one of the scripts that derived from *ri'asi*, a script said to have been invented by al-Fadl ibn Sahl, known as Dhu'l-Ri'asatayn (possessing two positions) because he was both vizier and army commander under al-Ma'mun (r. 813–33).
117. See Yosufi's article 'Calligraphy' in *Elr*, 4:689, presumably citing the unpublished treatise attributed to Ibn Muqla in Cairo.
118. The *alifs* and *lams* in the basmala, for example, have no serifs, a feature standard in later *muhaqqaq*.
119. Déroche, *Abbasid Tradition*, 133 and elsewhere.

120. Bloom, *Paper before Print*.
121. Lothar Ledderose, *Ten Thousand Things: Module and Mass Production in Chinese Art*, Bollingen Series (Princeton, 2000), 20–1. In China, as in the Islamic lands, many of these innovations were later linked to a celebrated individual: Wang Xizhi, for example, is credited with transforming calligraphy into a transcendent art form and giving the final formulation to the cursive Running Script (*xingshu*) and Draft or Grass Script (*caoshu*). As Eugene Y. Wang, 'The Taming of the Shrew: Wang Hsi-Chih (303–61) and Calligraphic Gentrification in the seventh Century,' in *Character and Context in Chinese Calligraphy*, ed. Cary L. Liu, Dora C. Y. Ching, and Judith G. Smith (Princeton, 1999), 132–73, pointed out, however, Wang Xizhi's canonization occurred only in the seventh century, nearly three hundred years after his death, as part of the Tang emperor Taizong's rewriting of the past to bolster his own line.
122. Efim Rezvan, 'The Qur'an and its World: VI. Emergence of the Canon: The Struggle for Uniformity,' *Manuscripta Orientalia* 4, no. 2 (June 1998): 51, n. 63.
123. The classic work on the subject is Dominique Sourdél, *Le vizirat 'abbaside de 749 à 936 (132 à 324 de l'Hégire)* (Damascus, 1960).
124. Yasser Tabbaa, 'Monuments with a Message: Propagation of *Jihād* under Nūr al-Dīn (1146–1174),' in *The Meeting of Two Worlds: Cultural Exchange Between East and West during the Period of the Crusades*, ed. Vladimir P. Goss, Studies in Medieval Culture (Kalamazoo, MI, 1986), 223–41; Tabbaa, 'Transformation 1: Qur'anic Calligraphy,'; Yasser Tabbaa, 'The Transformation of Arabic Writing: Part 2, The Public Text,' *Ars Orientalis* 24 (1994): 119–47; Yasser Tabbaa, 'Canonicity and Control: The Sociopolitical Underpinnings of Ibn Muqla's Reform,' *Ars Orientalis* 29 (1999): 91–100; Yasser Tabbaa, *The Transformation of Islamic Art during the Sunni Revival* (Seattle and London, 2001).
125. The earliest manuscript in broken cursive to survive is the mystical treatise copied by the author al-Niffari in 344/955–6, and broken cursive continued to be used for many kinds of manuscripts in the tenth century. A disciple of Ibn Muqla, Muhalhil ibn Ahmad al-Baghdadi (d. 958), for example, used broken cursive to transcribe a two-volume copy of al-Mubarrad's Arabic grammar, *Muqtasab fi'l-nahw* (Istanbul, Köprülü Library, mss. 1507 and 1508; Şeşen, 'Caracteristiques de l'écriture,' pls. IVB and VA; Derman, *Art of Calligraphy*, no. 8). The manuscript was corrected the same year by the linguist Abu Sa'id al-Sirafi, author of the treatise on Basran grammarians copied by 'Ali ibn Shadhan in broken cursive script in 376/986. By the eleventh century broken cursive was also used for manuscripts written in Persian (Figure 6.1). The same is true of other round scripts (see Chapter 6).
126. Muhalhil ibn Ahmad, for example, transcribed his Arabic grammar for someone named Abi'l-Husayn Muhammad ibn al-Husayn al-'Alawi, a patron whose name suggests that he would not have been part of the so-called Sunni revival. Not only was he the son of someone named Husayn (the Prophet's grandson), but he also named his own son Husayn and his *nisba* connects the family to the Prophet's son 'Ali.
127. Dominique Sourdél (*Le Vizirat 'Abbaside*, 2:257–62), the foremost authority on the 'Abbasid vizierate, judged Ibn Muqla neither an administrator of great vision nor a statesman of much originality, but someone who merely followed the politics of his predecessors. From modest beginnings as a secretary, he became a suave man-about-town, a versatile and

rather fickle courtier who wooed the caliph with polish and good manners. In Sourdél's view, Ibn Muqla's political program was hard to gauge and his financial acumen outweighed by his talents as poet and calligrapher. But even then, Sourdél concluded that Ibn Muqla's calligraphic impact was difficult to define. Ibn Khallikan credits Ibn Muqla's brother Abu 'Abdallah al-Hasan as the real inventor of the proportioned script, and according to Ibn al-Nadim, both brothers followed the calligraphy of their grandfather. It seems that Ibn Muqla, in calligraphy as in politics, was more an opportunist than an innovator.

Furthermore, Ibn al-Bawwab did not share the partisan religious beliefs of his predecessor Ibn Muqla. Although the caliph al-Qadir was intent in reinforcing 'Abbasid propaganda and persecuting Shi'ites, Ibn al-Bawwab was not associated with the 'Abbasid court. His main patrons were the Buyids, the Daylamite dynasty that rose to power in Iran and Iraq as 'Abbasid grip over the provinces waned. Like most Daylamis, the Buyids were Shi'ites, probably first Zaydis and then Imamis or Ja'faris (Twelvers). Under their rule, Qumm became a center of Shi'ite theology, and the Baghdadi teacher Ibn Babawayh, known as Suduk (d. 992), became one of the foremost thinkers of Imami Shi'ism. Ibn al-Bawwab frequented the government circles of the Buyids. He worked in Shiraz as librarian for the Buyid Baha' al-Dawla. Ibn al-Bawwab also used to preach in Baghdad at the Mosque of al-Mansur, and when the Buyid vizier Muhammad ibn 'Ali ibn Khalaf, known as Fakhr al-Mulk, assumed the governorate for the Buyids there in 1010, he made Ibn al-Bawwab one of his intimates.

As Rice (*Ibn al-Bawwab*, 13) showed, the copy of the Koran penned by Ibn al-Bawwab suggests that the calligrapher shared the Shi'ite leanings of his patrons. The verse count at the beginning (Figure 5.9) says that the Koran uses the Kufan version established by 'Ali ibn Abi Talib, who is eulogized with the phrase *'alayhi al-salam* (peace be upon him), a phrase used by the Shi'ites instead of the Sunni form *radiya allah 'anhu* (may God be pleased with him). Since the text does not actually follow this version, the frontispiece may have been added as a selling point, but the eulogy in the colophon at the end of the text refers to the Prophet's pure family (*'itratuhu al-tahirin*), and the colophon invokes blessings on the Prophet's family (*alihi*). Such references to the Prophet's family were favored by Shi'ites, whose claims to legitimacy were based on descent through the Prophet's line. Similar eulogies for the Prophet's family show up in contemporary mosques in Iran, such as the Friday mosque at Nayin (Blair, *Monumental Inscriptions*, no. 9). Rather than promulgating the Sunni branch of Islam, Ibn al-Bawwab's copy of the Koran and others like it (e.g., Khalili Collection QUR284, David James, *The Master Scribes: Qur'ans of the 10th to the 14th Centuries AD*, ed. Julian Raby, The Nasser D. Khalili Collection of Islamic Art [London, 1992], no. 1, a manuscript whose unexplained provenance and remarkable similarities to the Ibn al-Bawwab manuscript in Dublin might raise a few eyebrows) may have been made for the nascent Shi'ite community in Iran and Iraq. See also the comments in Sheila S. Blair and Jonathan M. Bloom, 'The Nasser D. Khalili Collection of Islamic Art,' *Persica* 15 (1993-5): 77-90.

- ^{128.} On the problem of the biographical dictionaries and their limitations in compiling biographies of specific individuals, see R. Stephen Humphreys, *Islamic History: A Framework for Inquiry* (Princeton, 1991), 189-208.
- ^{129.} Tabbaa, 'Transformation 1: Qur'anic Calligraphy,' 137. This is not

- entirely true, as the Koran copied by Shanbak ibn Muhammad in Misr in 325/936–7 is written in a round script (see above, note 31).
130. Anna Contadini's attribution (*Fatimid Art at the Victoria and Albert Museum* [London, 1998], 10–11) of a small manuscript in broken cursive dated 428/1037 (CBL 1430) to Fatimid Egypt is not convincing. Only one Koran manuscript has so far been attributed to the patronage of the Fatimids in North Africa: the so-called Blue Koran (Figure 4.10).
 131. Taqī al-dīn Aḥmad b. 'Alī b. 'Abd al-Qādir al-Maqrizī, *Le Manuscrit autographe d'al-Mawā'iz wa'l-i'tibār fī dhikr al-khiṭāṭ wa'l-āthār de Taqī al-dīn Aḥmad b. 'Alī b. 'Abd al-Qādir*, ed. Ayman Fu'ād Sayyid (London, 1416/1995), 300–1.
 132. Al-Maqrizī also preserves a long account of the sad looting of the Fatimid treasuries in 461/1068 from a work entitled *Kitāb al-Dhakha'ir* (Book of Treasures). Books were stolen from forty separate depositories in the palace and included 2,400 boxed Korans (*khatmat qur'an fī rab'at*) written in the proportioned scripts (*al-khatut al-mansuba*). See further Paul E. Walker, 'Fatimid Institutions of Learning,' *Journal of the American Research Center in Egypt* 34 (1997): 179–200.
 133. The information that we have has recently been collected by Ayman Fu'ād Sayyid, 'L'art du livre,' *Dossiers d'archéologie*, no. 233 (May 1998): 80–3.
 134. Fu'ād Sayyid reproduces the title pages from the two surviving volumes, this one in Cairo (DK, no. 242 luga) and the other in the library of the Asiatic Society of Bengal in Calcutta.
 135. It is now in Public Library in Rabat, Morocco.
 136. See Chapter 6 and Figure 6.7 for discussion and illustration of the scripts used in the Fatimid chancery.
 137. See Chapter 8 for further discussion of al-Tayyibi's manual.
 138. Gülru Necipoğlu, *The Topkapi Scroll: Geometry and Ornament in Islamic Architecture*, The Getty Center in the History of Art and Humanities (Santa Monica, CA, 1995), 104–9.
 139. Necipoğlu, *Topkapi Scroll*, 108.
 140. Whelan, 'Writing the Word of God,' 123.

The Proliferation of Round Scripts

IN THE LATE eleventh, twelfth, and early thirteenth centuries, round scripts came to dominate the calligraphic scene, as copyists strove to transform their regular hands into graceful and imposing scripts suitable for larger codices containing important texts, including the Koran. Some copyists in the eastern Islamic lands continued to use the broken cursive supposedly canonized by Ibn Muqla, but the script became increasingly stylized until it was gradually relegated to headings and incidentals. Secretaries and copyists there also played with other round scripts. Like the majuscule and minuscule scripts used in the West,¹ these round scripts eventually came to be grouped in sized pairs later canonized as the Six Pens – *tawqiʿ* and its smaller counterpart *riqaʿ*, *thuluth/naskh*, and *muhaqqaq/rayhan*. Contemporary copyists in the Maghrib, who eschewed the adoption of paper and continued to use parchment, created their own distinctive style of round script, which also came in larger and smaller sizes. The development of regional varieties of round scripts is clearly related to the historical situation, in which distinct cultural centers arose at Baghdad, Nishapur, Cairo, Córdoba, and elsewhere.² Since these scripts had not yet reached their canonical forms, scholars sometimes categorize the same specimens under different names,³ and one of the aims of this chapter is to delineate significant features of individual examples.

The stylization of broken cursive

Broken cursive had a long and varied shelf life. In these centuries it was used not only for Arabic but also for Persian. The first surviving manuscript in new Persian – a copy of al-Haravi's pharmacological work entitled *Kitab al-Anbiyaʿ* (Book of the Prophets) (Figure 6.1) transcribed in 447/1055–6 by the poet ʿAli ibn Ahmad Asadi al-Tusi – is copied in a rough broken cursive, with a larger and more polished version used as display script in the opening two lines with the Persian invocation to God.⁴ The text script is characterized by strokes of varying thickness, left-facing serifs, diagonal tails, and a spur on final *alif*; the display script is a more stylized version.⁵ In it, the vertical strokes of the four *alifs* in the first line are drawn out to contrast with the horizontal bars of *gaf* in the second line, which is so

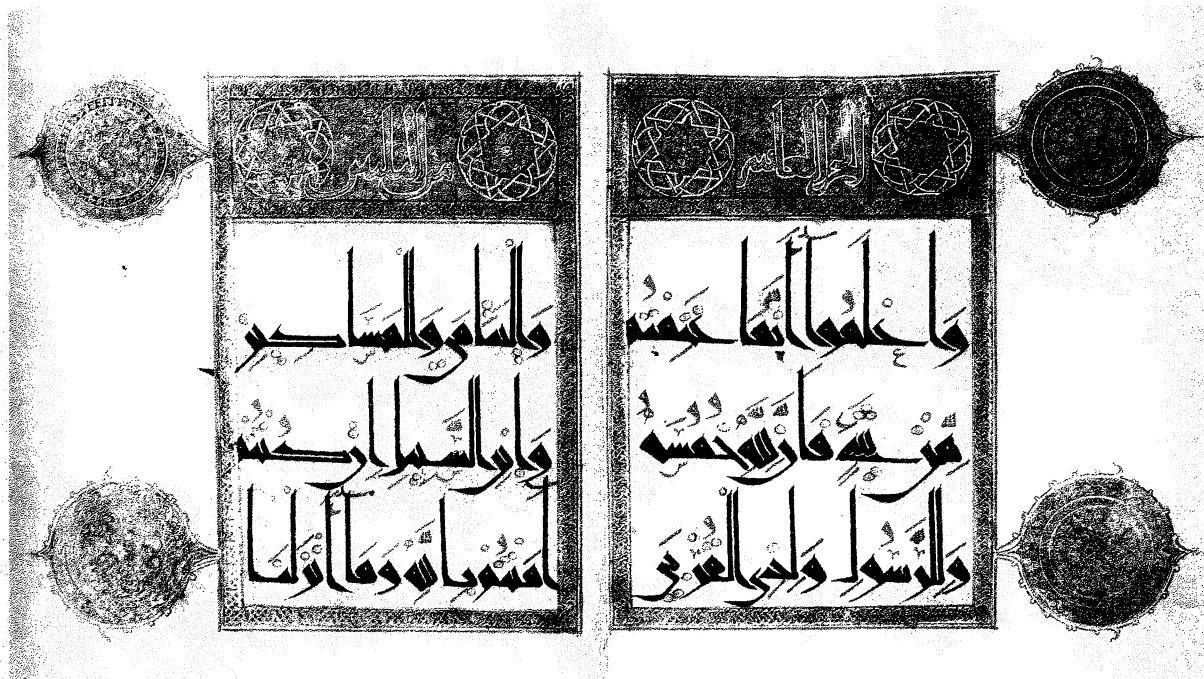
Figure 6.1 Opening page from a copy of the *Kitab al-Anbiya'* transcribed by 'Ali ibn Ahmad Asadi al-Tusi, perhaps at Nakhchivan, and dated Shawwal 447/December 1055-January 1056.

This manuscript, copied in broken cursive, is the first known manuscript in new Persian. Its script exemplifies the type of broken cursive that had developed in Iran and the eastern Islamic lands by the eleventh century.



elongated that the last four letters of *bakhshayishgar* (the Compassionate) occupy the whole line. To enliven the long and thick horizontal stroke, al-Tusi added a thinner line below with small bumps like little wheels on a railroad car, the same mannerist trait already used by 'Ali ibn Shadhan almost a century earlier in Iran (Figure 5.3a) and in the Nurse's Koran copied a generation earlier at the other end of the Islamic lands. Al-Tusi clearly enjoyed making flourishes and patterns in this stylized script. He extended the upper stroke of *gaf* in line two so that it swoops to the top left of the page and balances the swooping stroke on the right which indicates the three dots of *shin* in *bakhshayanda* (the Merciful). This stylization of the Persian invocation to God became standard.⁶

To judge from surviving manuscripts, broken cursive became particularly popular for Koran codices, which were penned regularly in



this distinctive script until the early thirteenth century.⁷ The most striking examples (Figure 6.2) are multi-volume codices that measure 25×20 cm or less.⁸ The folios are thus vertical format and medium sized, but each page appears larger, for it has only four or five lines of script written firmly in black ink, with red vocalization, gold circular pointing, and blue for other signs. The large size of the script and the low number of lines per page means that many pages were required for the full text, typically bound as a thirty-volume set. Each volume contains some 75 folios, making a total of 2,250 in the complete manuscript. The format (but not the size) thus foreshadows the magnificent Koran manuscripts made for the Ilkhanids at the beginning of the fourteenth century (Figure 7.2).

The relatively high cost of these multi-part Koran manuscripts in broken cursive is conveyed by their spaciousness. The lines are widely spaced, the letters attenuated. The bodies of the letters have shrunk in proportion to the rigidly vertical ascenders, which can be as much as twenty-five times the width of the penstroke or eight or nine times as tall as the body of low letters like medial *kaf*. Such extreme stylization shows a script that is slowly ossifying.

The wide spacing and attenuated strokes of this broken cursive left ample room for other decoration. In one, slightly larger (33×26 cm) manuscript, the space between the lines was filled by an interlinear Persian commentary in *naskh*.⁹ In other cases, the letters were set within contour panels and the ground filled with ornamental scrolls. This was typical for opening and closing pages in the individual

Figure 6.2 Opening double page containing Sura 8:41 from part ten of a thirty-volume Koran manuscript with five lines per page penned by 'Uthman ibn Husayn al-warraq (the copyist) in 466/1073-4.

This manuscript exemplifies the type of medium-sized, multi-volume copy of the Koran penned in broken cursive that was popular in eastern Iran in the eleventh, twelfth and possibly the early thirteenth centuries. The lines are widely spaced, and the headings, such as this one marking the beginning of part (*juz'*) 10, are richly illuminated in gold.



Figure 6.3a

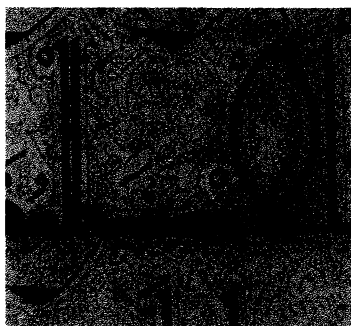


Figure 6.3b

sections, but in one of the most elaborate of these manuscripts – a dispersed copy often dubbed the Qarmathian Koran – the four lines of text on each page are surrounded with scrolling arabesques (Figure 6.3).¹⁰ In this manuscript the reserve decoration has become as important as the calligraphy it surrounds.

The rigid angularity and heightened contrast between thick and thin strokes typical of broken cursive are particularly striking in the Qarmathian Koran. The four lines are set on a rigid horizontal baseline. Connecting letters are not raised as they are in modern printed texts. Note, for example, the word *ahadan*, the second word in the first line (Figure 6.3a), in which the *ha*' is set at the same height as the following *dal*. The *ha*' is marked below by a small *ha*' below to distinguish it from homographs such as *jim*. This tradition of marking unpointed (*muhmila*) letters derives from the scribal tradition (Figure 5.1) and shows that broken cursive is a stylization of the typical secretarial hand. The letters in the word adhere rigidly to the baseline, which provides the contrast to the vertical ascenders that march across the page. The grid is punctuated by diagonals in the form of the large descending tails of final *nun*, *sad* (Figure 6.3b), and *ya*'. They look somewhat like hockey sticks, as thin diagonal downstrokes juxtapose thick triangular terminals. The distinct contrast between thin stroke and thick terminal creates a feeling of tension, as though a thread-like string was supporting a heavy weight.

The occasional curved stroke jumps out from the rectilinear grid, as with the bold pincer-like *lam-alif* in the word *al-ard* in line two (Figure 6.3b) or in the wiggly terminal *nun* in the syllable *-in* squeezed above the end of line four. Unlike early kufic Koran manuscripts, in which the copyist broke lines in the middle of a word, in these copies breaking between words has become standard, and the copyist had to squish the final letters of the last two words above the bottom two lines. Despite the stylization of the script, readability was important in Koran manuscripts transcribed in broken cursive. This change heralds a shift in the manner of using the text, in which readers were expected to read in words, rather than recite from memory.

The rich illumination on these Koran manuscripts in broken cursive often includes extensive gold. In addition to the markings used in their smaller cousins, these manuscripts have elaborate *sura* headings, with rectangular panels of gold and blue surrounded by gold braid and large roundels in the margin. Some pages have gold braid around the text, with similar marginal roundels. The marginal decoration also includes squares or boxes shaped like classical *tabulae ansatae* with additional information such as the place where the *sura* was revealed or the number of verses in it. Decorating both sides of each folio in the Qarmathian Koran with contour panels filled with scrolls – a total of 4,500 decorated pages – was an extraordinarily time-consuming enterprise, yet in some cases the colophon tells us that the decoration was executed by the copyist himself.¹¹

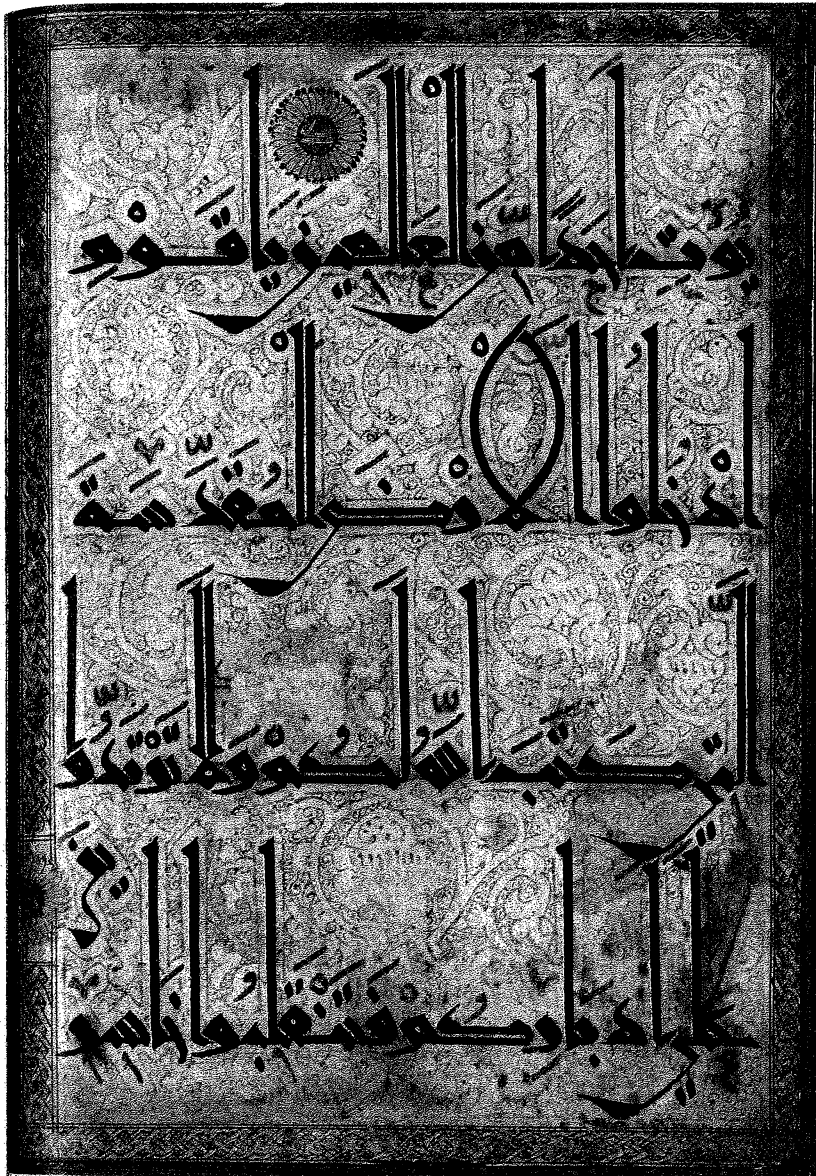


Figure 6.3 Page containing Sura 5:20–1 from a dispersed thirty-volume Koran manuscript with four lines per page.

The so-called Qarmathian Koran is the most elaborate of the large manuscripts penned in broken cursive during this period. The elongated letters are set in reserve against a scroll ground, an arrangement typical of several large-scale Koran manuscripts penned in broken cursive, probably in eastern Iran in the twelfth century.

Because of its striking visual appearance, broken cursive was particularly suitable as a display script. Already used for titles, headings, and special effects in the tenth and eleventh centuries,¹² it continued to be used this way in later manuscripts penned in other round scripts, particularly *naskh*, but became increasingly stylized, almost beyond legibility. This is shown by the large (37 × 29 cm) and finely illustrated copy of pseudo-Galen's pharmacology entitled *Kitab al-Diryaq* (Book of Antidotes) (Figure 6.4) that was transcribed and illustrated by Muhammad ibn Abi'l-Fath 'Abd al-Wahid ibn Abi'l-Hasan ibn Abi'l-'Abbas Ahmad in Rabi' I 595/January 1199 for his nephew,

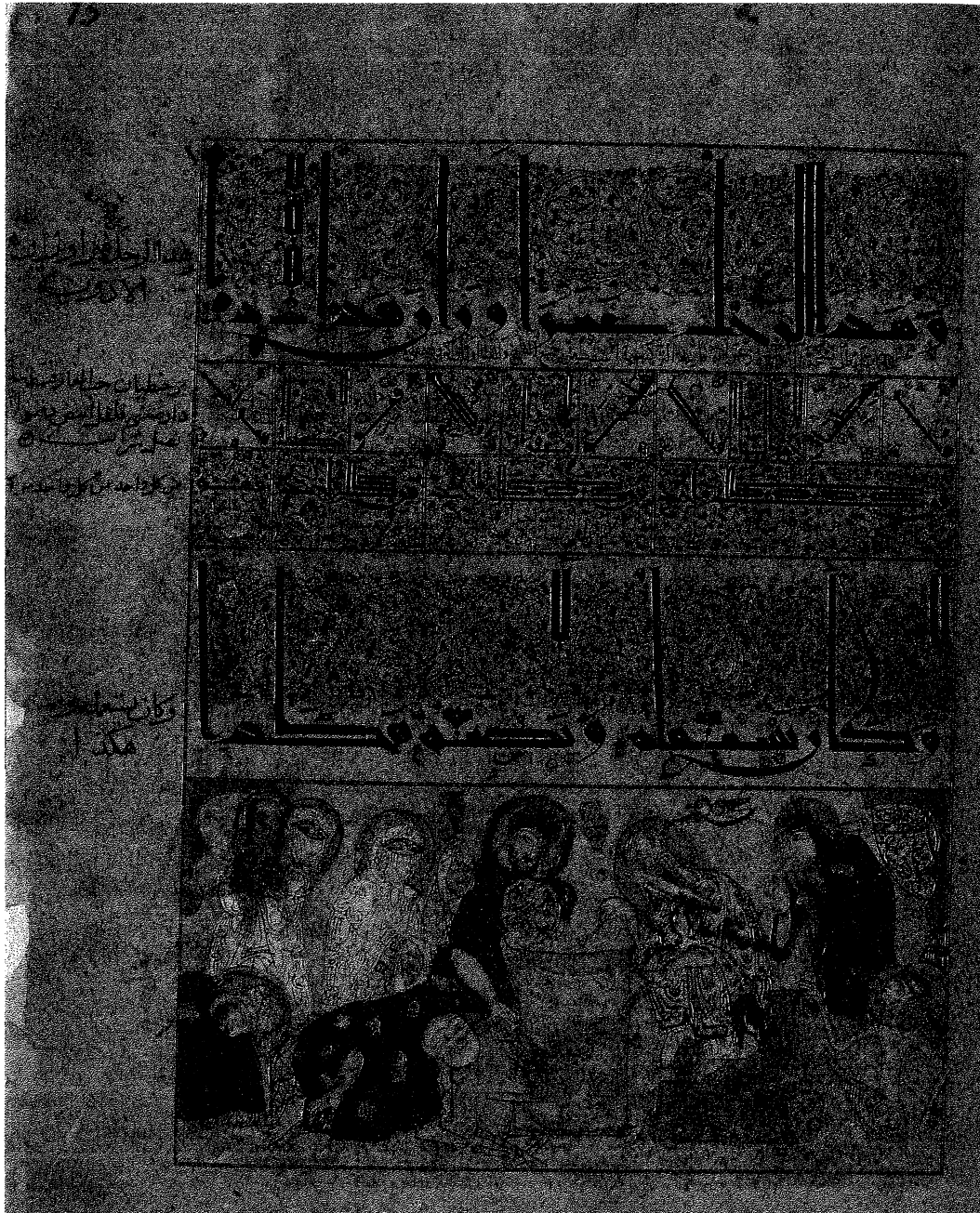


Figure 6.4 Page showing the physician Aflaghuras preparing an antidote from a copy of pseudo-Galen's pharmacology *Kitab al-Diryaq* transcribed and painted by Muhammad ibn Abi'l-Fath 'Abd al-Wahid ibn Abi'l-Hasan ibn Abi'l-'Abbas Ahmad in Rabi'I 595/January 1199, probably in northern Iraq.

The copyist, who also painted the illustrations in this manuscript, transcribed the text in a fine round script, to be identified as *naskh*, which contrasts with the particularly elongated and stylized broken cursive he used for titles and headings. His script is as inventive as his paintings, with added flourishes and decoration to stretch out the text.

the imam Abu'l-Fath Mahmud ibn Jamal al-Din.¹³ To judge from the style of the illustrations, the manuscript was probably made in northern Iraq, where the copyist belonged to a prominent Shi'ite family, as indicated by his lengthy genealogy. He was justly proud of his work here, for he not only signed his name in the colophon, but also included it on one of the many introductory pages in broken cursive.

In this pharmacological manuscript, Muhammad ibn 'Abd al-Wahid set off the round text script (seen here in the small line penned in red one-third of the way down the page) with many headings in an extremely stylized broken cursive. His broken cursive is particularly attenuated: the *alif*, which bends to the right at the bottom (Figure 6.4a), measures some twenty-six times the width of the penstroke or almost nine times the height of the low letters. The broad flat verticals contrast abruptly with the hair-thin curving tails of descending letters like *waw* and *ra'*. To break up the empty fields above the low bodies of the letters, the copyist often inserted a U-shaped motif at regular intervals, as in the lower band of broken cursive above the miniature. Sometimes he stacked up these U-shapes or losenges to form the upper strokes of plaited *lam-alif* (Figure 6.4b) or simply to decorate low letters like final *ha'*. He then filled the ground between uprights with a gold scrolling arabesque that seems to float like a cloud above the low line of script penned in dark black, bright red, and ultramarine blue. Color is thus added to heighten the formal impact.

Muhammad ibn 'Abd al-Wahid played with broken cursive in other ways as well. In a few cases, he adapted the format, setting the words in broken cursive on the diagonal and stretching out the connectors or bodies of low letters to form a pattern. In this page, for example, the diagonal words in boxes in the middle line form a chain of black hills set between red trees formed by elongated verticals in the intervening boxes. In several pages at the end of the text, Muhammad ibn 'Abd al-Wahid set the diagonal words in four boxes to form diamond shapes.¹⁴ These diagonally set words are the model for later Persian copyists who penned verses on the diagonal to stretch out the text so that the space for an illustration fell at a particular and appropriate place in the text (Figure 7.10).

In other cases, Muhammad ibn 'Abd al-Wahid elaborated a single letter. On this page showing the physician Aflaghuras preparing an antidote, for example, the copyist repeated the phrase *min kul wahid* penned in black, red, and black in three adjacent boxes in the middle (Figure 6.4c). In each box he elaborated the *kaf* of *kul* in a different way, stretching out the upper stroke so that it looks like ribbon candy. In many ways, then, Muhammad ibn 'Abd al-Wahid's broken cursive script is as inventive as his paintings. It is also deliberately classicizing, used to associate this scientific text with scripture and add gravitas to a manuscript that, however luxurious, was made for family use. Nevertheless, his extreme stylizations made this script almost impossible to read, and two later readers transcribed the text

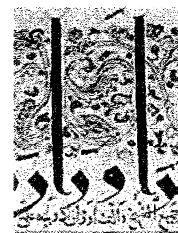


Figure 6.4a



Figure 6.4b



Figure 6.4c

in a more usual round hand in the margins. Broken cursive is here a script that has past its prime.

The waning popularity of broken cursive in Iran and adjacent regions can be seen by juxtaposing the pharmacological manuscript in Paris to another copy of the same text transcribed a half century later, probably in Mosul for the atabeg Badr al-Din Lu'lu' (r. 1234–59), who is portrayed in the frontispiece.¹⁵ Both manuscripts are transcribed in *naskh*, but the headings in broken cursive in the Paris manuscript are replaced by headings in *thuluth* in the Vienna copy. From the thirteenth century onwards, broken cursive was used primarily as a display script in manuscripts transcribed in Iran and its environs. Headings in broken cursive occur, for example, in a Persian copy of the bestiary, *Manafi'-i Hayawan*, copied at Maragha in the 690s/1290s, and in a related copy that has been dispersed.¹⁶ Used sporadically until the sixteenth century in Koran manuscripts for headings, marginal ornaments, and the odd section of text, the script became increasingly mannered and stiff, a graphic puzzle intended to recall scripture and revive the past.

Other round scripts

In this period copyists continued to grapple with the problem that had confronted their predecessors in the previous centuries: how to transform their regular round hands into calligraphic scripts suitable for religious texts and wealthy patrons. Some copyists tried to add the angles typical of broken cursive to the typical round hand used for copying in order to create a more monumental style. Such an approach can be seen (Figure 6.5) in a book on the physical and moral characteristics of the Prophet, *Kitab khalq al-nabi wa'l-khulqih*, transcribed at Ghazna by Abu Bakr Muhammad ibn Abi Rafi' al-warraq (the copyist or bookseller).¹⁷ The ex-libris on the first page names the Ghaznavid amir 'Abd al-Rashid, who ruled from 1049 to 1053, and the manuscript is therefore datable c. 1050. Each medium-sized page has nine or ten lines of distinctive small black script, with a larger gold one used for display purposes such as headings and the last line of the colophon.

Abu Bakr Muhammad's hand is notable for its angles. As in Ibn al-Bawwab's Koran codex (Figure 5.8), the words here do not sit flat on the baseline, but slope downwards from right to left, but this hand is jerkier and more angular. Final *ya'* has an sharp angle, a joint that calls to mind the angular strokes in broken cursive. *Alif* has a thick top and a hook or serif that extends to the left in initial position and to the right in final position, another detail characteristic of broken cursive. The tails on final *nun*, *ya'*, and other letters are often extended so that they encircle the following letter, syllable, or even word, but the stroke varies in thickness, as in broken cursive. Looped letters are sometimes blind. As Stern surmised, the copyist probably tried to transform his regular book hand into a calligraphic script suitable for a luxury manuscript made for the ruler.

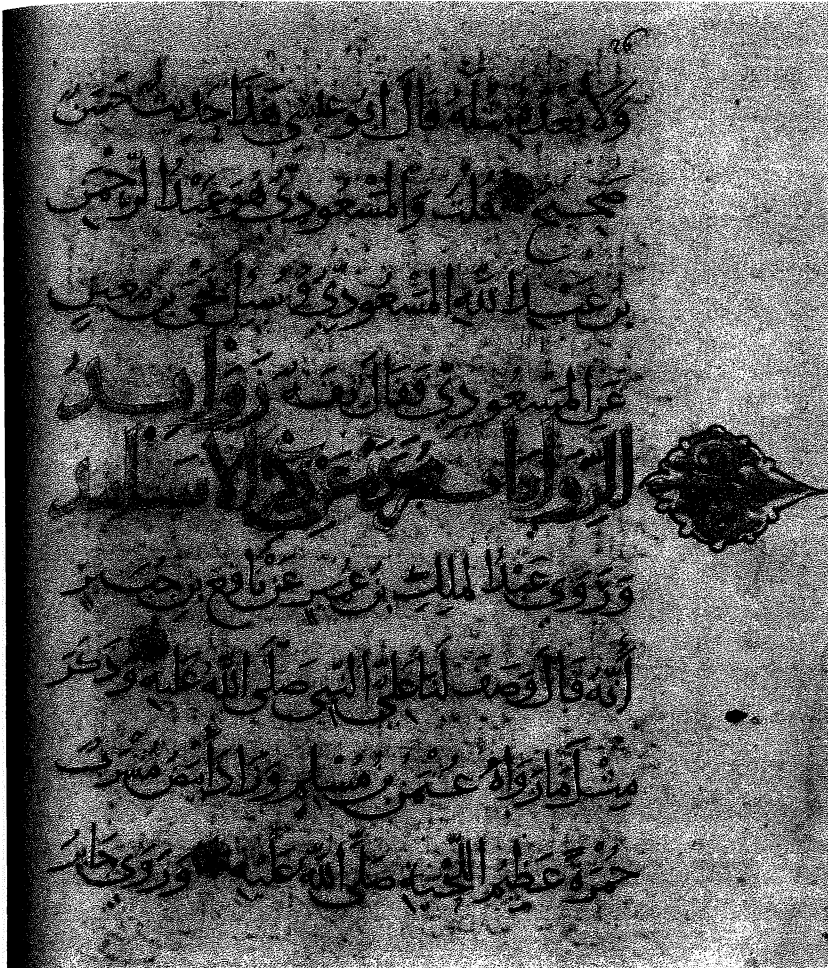


Figure 6.5 Page from a treatise on the characteristics of the Prophet entitled *Kitab khalq al-nabi wa'l-khulqih* transcribed at Ghazna by Abu Bakr Muhammad ibn Abi Rafi' al-warraq (the copyist) for the Ghaznavid amir 'Abd al-Rashid (r. 1049–51).

Each page of this manuscript is transcribed in black ink with nine or ten lines of a stilted round script for the text and gold lines of a larger and thicker script for titles and the last line of the colophon. The copyist was probably trying to make his regular scribal hand, broken cursive, smoother and more fluid for this fine manuscript made for the Ghaznavid ruler.

Other copyists in the eastern Islamic lands used different methods to transform their regular scripts into Koranic ones, as shown by a codex transcribed by 'Uthman ibn Muhammad in 505/1111–12 at Bust, now in Afghanistan.¹⁸ The 125-pages contain the fifth section of a seven-part Koran. Each page has seven lines of text in black ink. The first and last pages (Figure 6.6) are particularly elaborate, with gold margins enclosing cloud panels of scrolling arabesques, the same type of background used in the Qarmathian Koran (Figure 6.3), probably done in the same milieu.

Though small (20 × 15 cm), the Koran manuscript made at Bust is elaborately decorated in gold. The fine illumination is the work of 'Ali ibn 'Abd al-Rahman, whose name is recorded in kufic in the small box in the center of the gold band above the colophon. His somewhat awkward signature (he had to squish the last word of his father's name in the line above) shows the growing importance of this type of specialist. In the eleventh and twelfth centuries the same

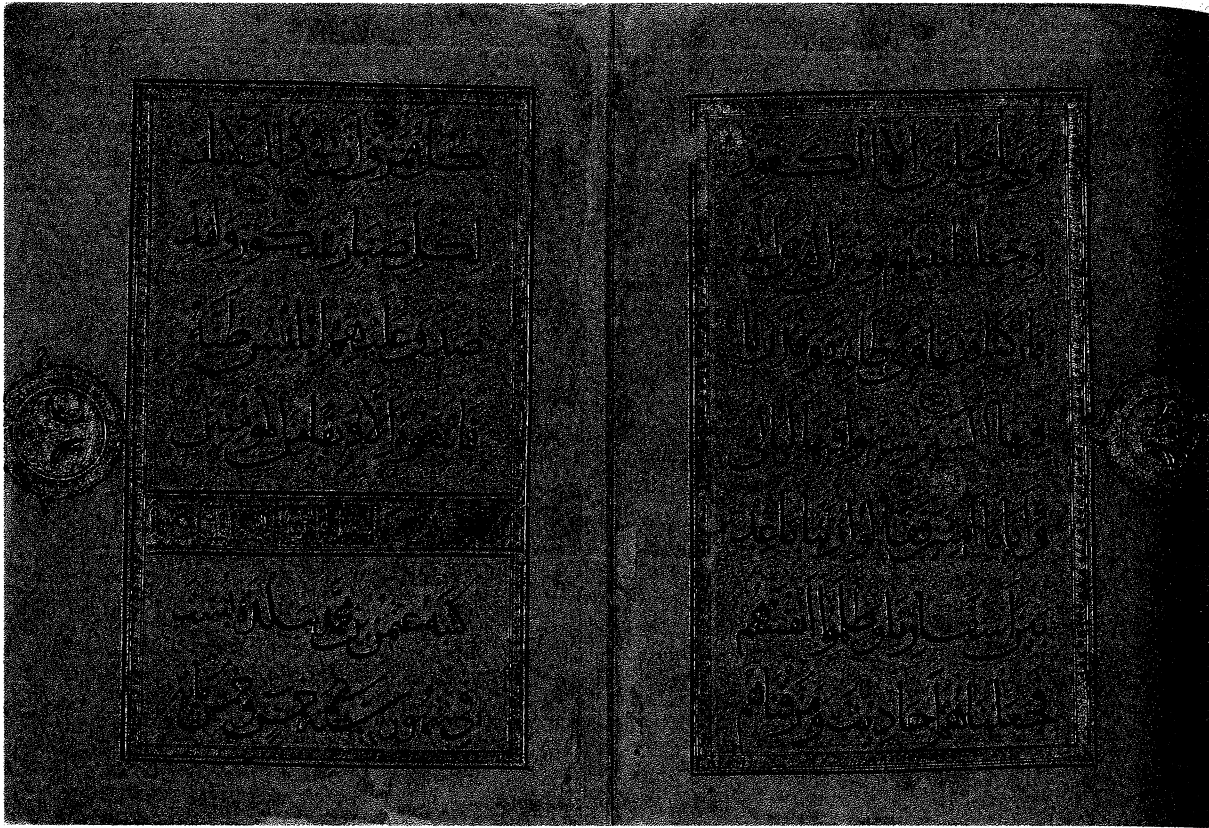


Figure 6.6 Closing pages containing Sura 34:17–20 and the colophon from the fifth section of a seven-part Koran manuscript with seven lines per page copied by ‘Uthman ibn Muhammad and illuminated by ‘Ali ibn ‘Abd al-Rahman at Bust in 505/1111–12.

The scribe used a curvaceous script that shares many features with *thuluth* but also has a closed final *ya* typical of *muhaqqaq* and many unauthorized connections typical of the secretarial script *tawqi*.

person often did not only transcription but other work including illumination, illustration, and even binding.¹⁹ But individual specialists are also known, and in subsequent centuries a pair of artists – a renowned illuminator who worked in combination with a signed copyist – will become more important (see Chapter 7).

For his small Koran codex, the copyist ‘Uthman ibn Muhammad used broken cursive as display script and penned the Koranic text in a fluid round hand that bears characteristics of several of the Six Pens as they were later formalized.²⁰ Many features of the text script are typical of *thuluth*. For example, independent *alif* has a right serif and a left foot. Tails on *ra* sometimes end with an upwards hook which is sometimes written with a lighter stroke (Figure 6.6a). Final *nun* often sweeps below the following word. Dots are placed on the diagonal.

Other features of the text script in the Bust Koran, however, are typical of other scripts. On some pages, the tail of a letter extends into the side or bottom margin, a feature characteristic of kufic manuscripts of the Koran. Most features, though, are characteristic of various round scripts. Final *ha* is a closed loop (Figure 6.6b), as in *muhaqqaq*. The copyist also used several non-standard connections, particularly to *alif* (Figure 6.6c) and from *lam* (Figure 6.6d). These unauthorized connections are typical of the secretarial script *tawqi*.

and François Déroche even identified the text script in the Bust Koran as *tawqi'*, making it the only known copy of the Koran transcribed in this script.²¹

The connection of the text script in the Bust Koran to secretarial *tawqi'* is clear when we compare it to contemporary documents from the Mediterranean lands. Since 'Abbasid times, secretaries had used *riqa'* and its larger counterpart *tawqi'*, but the first series of documents that has survived was issued in the eleventh and twelfth centuries by the Fatimid chancery, most of them preserved in the monastery of St Catherine at Mt Sinai.²² On all of these Fatimid decrees, the text is written in a small rounded hand, juxtaposed in two cases to the authenticating signature written in a larger version of the same connected script. A good example is a long (353 × 21 cm) scroll containing a decree dated 530/1136 in which the Fatimid caliph al-Hafiz orders the amir Muwali al-Dawla, military governor of al-Tur, to extend his protection to the monks, and especially the bishop, of Mt Sinai (Figure 6.7).²³

The vizier's signature, *al-hamdu li'llahi 'ala ala'hi* (Praise to God for His gifts), is written in large characters between the second and third lines of the decree. As with signatures today, the vizier's is personalized so as to be distinctive: the upper strokes of *alif*, *lam*, and *ta'* *marbuta* have been extended so that they all end at a similar height. These strong verticals are countered by the slashing stroke of initial 'ayn. Other combinations like *alif*, *lam*, and *alif* are run together such that except for the formulaic nature of the phrase, they would be unreadable.

Preserved in its entirety, the 38-line document gives a good idea of the contents of a typical decree. The text opens with the basmala on the top line. The first part of the decree proper, known as the *arenga* in European diplomatic terms, contains general principles of government that motivated the particular order covered in the decree. In this decree, lines 2–5 give general considerations about God having entrusted the caliph with the government of all his subjects, Muslims and protected people alike. This preliminary matter is followed by the body of decree, divided into two parts. The first (lines 6–12), corresponding to the *expositio* or *narratio* in European diplomatic, explains the circumstances that motivated the issuance of the document. The second part (lines 13–27) contains the actual order (*dispositio*). At the end are final injunctions (lines 28–35) and the date, closing eulogies, and the formula 'God is sufficient for us, how fortunate is the deputy' (*hasabani allah wa ni'm al-wakil*; lines 36–8).

Other than the signature, the text is written in a round hand similar to the one used on the other nine documents in the series. Smaller than the script used for the signature, the text script can be identified as *riqa'*. The name derives from the verb *raqa'a*, meaning to patch, repair, or piece together.²⁴ The noun *ruqa'a* (pl. *ruqa'* or *riqa'*) designates a patch or piece of cloth with which a garment or the like is patched. Also used for a small sheet of paper or note, the term came



Figure 6.6a



Figure 6.6b



Figure 6.6c



Figure 6.6d

Figure 6.7 *Beginning of a thirty-eight-line decree issued by the amir Muwali al-Dawla, vizier to the Fatimid caliph al-Hafiz, in 530/1136.*

The vizier's motto or signature is written in a large hand, to be identified as *tawqi'*, between the second and third lines of the decree, which are written in a smaller hand, to be identified as *riqa'*. These scripts were developed from chancery hands that were regularized and monumentalized for use on official documents.



Figure 6.7a

to mean petition. In Fatimid times, it was used for petitions addressed to the chancery, as opposed to the widely spaced edicts or decrees issued by the chancery. These petitions were usually written on a single sheet of paper, sufficient for the fifteen or so lines that comprise the typical document.²⁵

Riqa', like its larger counterpart *tawqi'*, was already used in 'Abbasid times. The tenth-century chronicler Ibn al-Nadim mentions *riqa'* as derived from *khafif al-thuluth al-kabir* and used for signing edicts and similar things,²⁶ and both the large and small scripts on the Fatimid decree share similarities with *thuluth*. As in *thuluth*, *alif* in *riqa'* bends to the bottom left, and descenders end with a small upwards hook. In the *riqa'*/*tawqi'* pair, however, this bend or hook can be continued upwards and join to the next letter, as in the *ra'* that joins to *ha'* in the word *al-rahman* in the basmala (Figure 6.7a) or in the *alif* that is joined to the *mim* of *amir*, the fifth word in line two. Final *ha'*, written like a squiggle that is open at the bottom, is also similar to the shape found in *thuluth*.

In addition to the unauthorized connections of the *tawqi'*/*riqa'* pair, other features connect the text script in the Bust Koran to other members of the Six Pens. The looped final *ha'* (Figure 6.6b) connects it to *muhaqqaq*. Already used for headings in Ibn al-Bawwab's fine copy of the poems of Salama ibn Jandal (Figure 5.11), *muhaqqaq*, like *thuluth*, was rare for complete codices, as copyists in the twelfth century were still experimenting with codifying this style.²⁷ One unusual example is a Koran manuscript (Figure 6.8) completed in 555/1160 by Mas'ud ibn Muhammad, the secretary from Isfahan (*al-katib al-isfahani*).²⁸ He has been identified as the son of the well-known politician, historian, and man of letters, 'Imad al-Din Muhammad ibn Muhammad, *al-katib al-Isfahani* (1125–1201).²⁹ To judge from what we know about 'Imad al-Din's life, his son Mas'ud must have been in his teens when he calligraphed this Koran codex, presumably in Iraq, where his father served the 'Abbasids.

The script in this large (40 × 30 cm) Koran codex is monumental but sober. Bowls of descending letters are shallow, elliptical, and sometimes extend to encircle the subsequent group of letters (Figure 6.8a). Final *lam* is not written with a bowl but looks like a *kaf*, as in *kul*, the fourth word of the third line (Figure 6.8b) and the first word of the fourth line of text. Unauthorized ligatures are not permitted, as in the word *al-sa'a* (Figure 6.8c) in line three, in which each letter is written separately. To enliven the page, the copyist picked out God's name in gold outlined in black in a curvaceous *thuluth* (Figure 6.8d).

The script in this Koran manuscript shows many features of *muhaqqaq*, the member of the Six Pens that became the Koran script *par excellence* under the Mamluks (see Chapter 8). Compared to later examples, however, this hand is more curvilinear. Bowls, as on final *nun*, are bigger and more varied. *Alif* is not always rigidly vertical, but sometimes has a slight bend, and there are more rounded elements. These are characteristics of *rayhan*, and modern scholars have classified this script as a hybrid combining elements of both *muhaqqaq* and *rayhan* or even just *rayhan*, the smaller sister of *muhaqqaq* that became particularly popular at the end of the thirteenth century under Yaqut (see Chapter 7), when it achieved a graceful and standardized style.³⁰

In this period, copyists also worked to monumentalize the small round scripts. A good example is a large (42 × 29 cm) single-volume manuscript (Figure 6.9) whose colophon states that Mahmud ibn al-Husayn, the secretary from Kirman (*al-katib al-kirmani*), wrote and illuminated it in the city of Hamadan at the end of Jumada I 559/April 1164.³¹ His epithet *al-katib* suggests that he served as secretary in the chancery of the Great Saljuqs, rulers of Iran and Iraq in the late eleventh and twelfth centuries.³² The manuscript has since led a peripatetic life. By the eighteenth century, it was in Cairo; by the twentieth it had reached Philadelphia.³³ Despite its peregrinations, it is

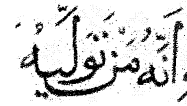


Figure 6.8a



Figure 6.8b



Figure 6.8c

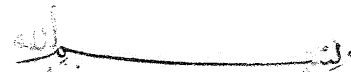


Figure 6.8d

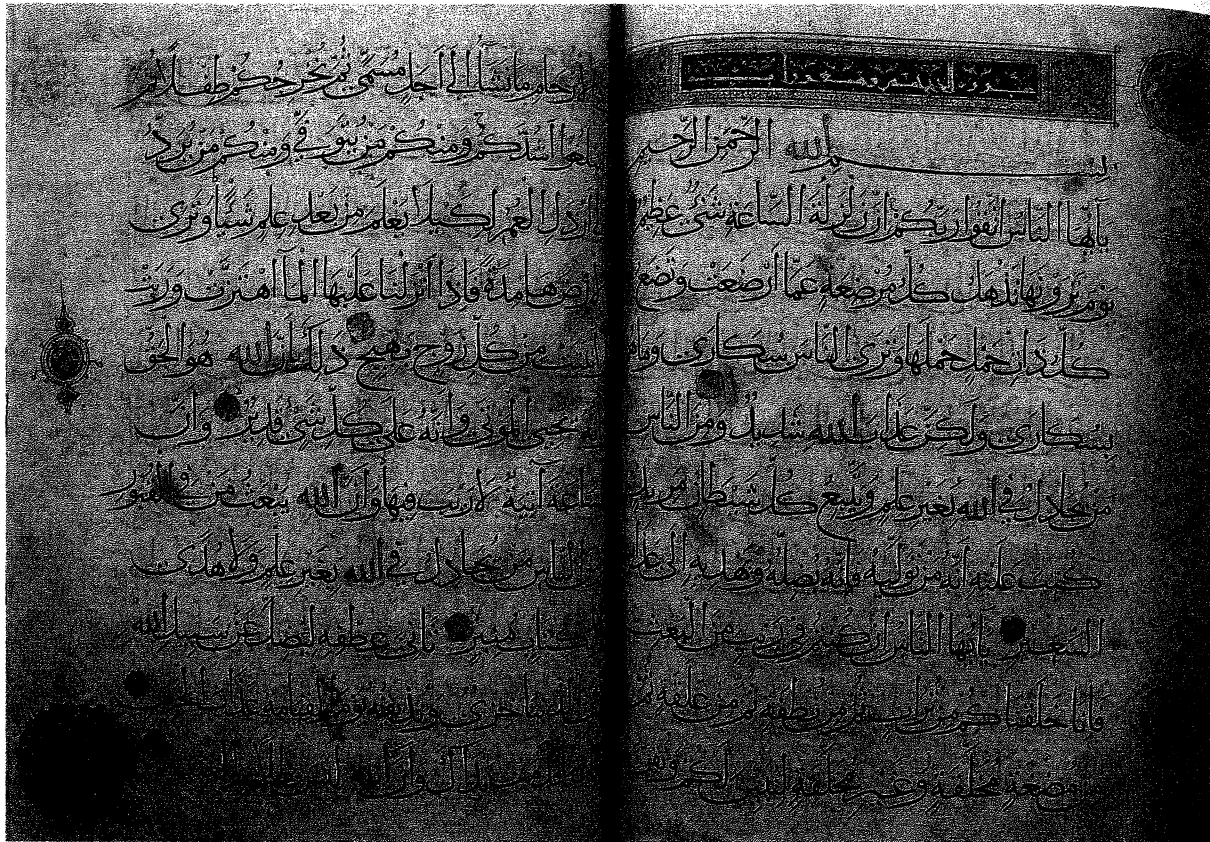


Figure 6.8 Double page containing Sura 22:1–10 from a Koran manuscript with eleven lines per page transcribed by Mas'ud ibn Muhammad, the secretary from Isfahan (al-katib al-isfahani) and finished in 555/1160.

This manuscript is penned in an upright script with barbs or hooks on the *alif*, reduced sublinear strokes, and sharp tips to the strokes. It is closest to *muhaqqaq*, the script that became standard for the largest and finest Koran manuscripts produced under the Mamluks.

intact, and its large size, fine state of preservation, and complete documentation make it a useful benchmark in showing the development of Koranic script in courtly codices.

Each regular page in the 215-page Hamadan Koran contains seventeen lines of small round script penned in black ink. Letters are serifless, as in *naskh*, but bowls are rounded and closed and some letters are blind, as in *rayhan*. The script is most notable for the generous spaces between words, a feature that distinguishes the script that the Mamluk chronicler al-Tayyibi later called *manthur* (scattered).³⁴ Every line of text in the Hamadan Koran (Figure 6.9a) is accompanied by a line of Arabic commentary, written on the slant in red in a smaller round script with larger open bowls typical of *naskh*. Size, color, and script distinguish text from commentary and



Figure 6.9 Opening double pages containing Suras 1–2:4 from a single-volume Koran manuscript with seventeen lines per page copied and illuminated by Mahmud ibn al-Husayn, the secretary from Kirman (al-katib al-kirmani) at Hamadan at the end of Jumada I 559/April 1164.

This intact Koran manuscript is particularly valuable for its documentation. The colophon gives the name of the scribe-illuminator, the date, and the place of transcription. The copyist was a secretary, probably in the Saljuq chancery, and this large manuscript exemplifies the many round scripts used in western Iran in the twelfth century.

also from headings, which are written in yet other scripts and colors. Both opening pages are finely illuminated with two shades of gold contrasting with red, white, and blue and headings written in white outlined in gold, but the rubrics differ in content and style. The one on the right side (fol. 1b), giving the numbers of letters in the text, is written in a curvaceous hand that resembles *thuluth*. The one on the left (fol. 2a), giving the title of the *sura* and an appropriate

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

Figure 6.9a

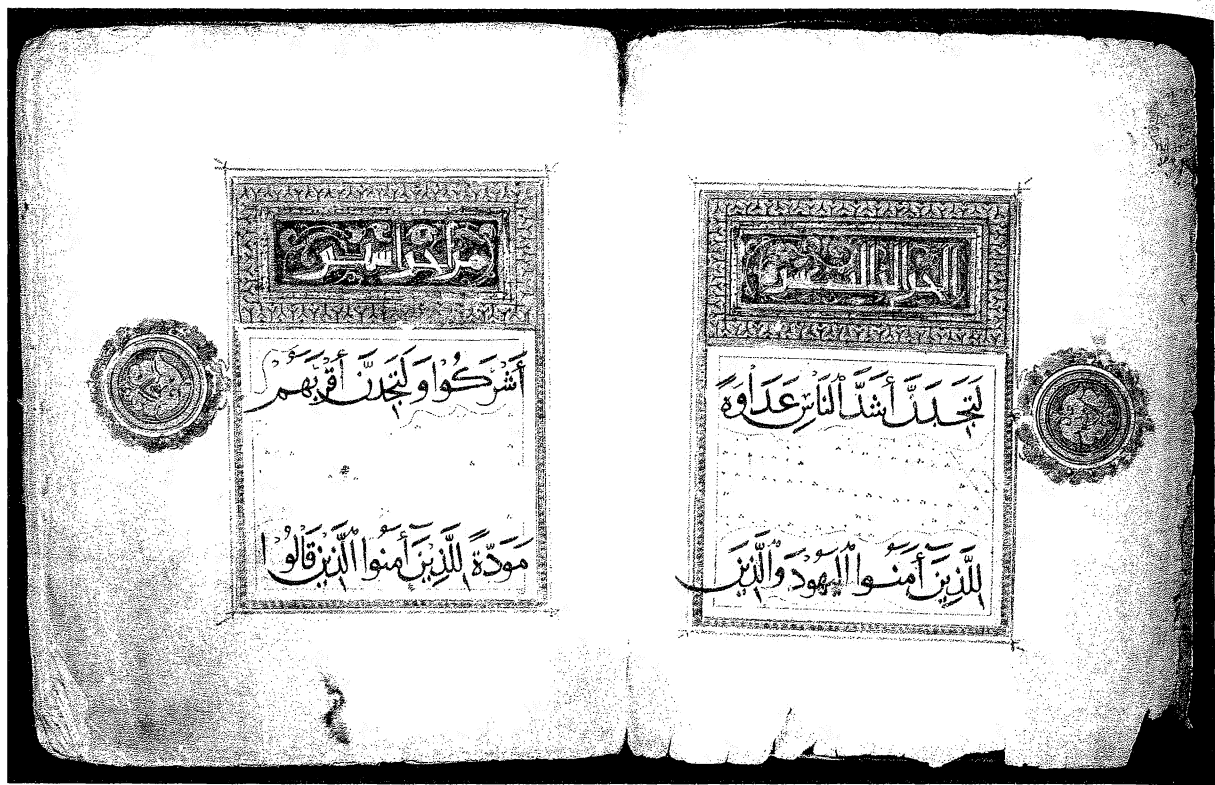


Figure 6.10 Double page containing Sura 5:82, the opening to juz' 13, from a sixty-part Koran manuscript with four lines per page copied by 'Ali ibn Ja'far ibn Asad al-katib (the secretary) for Nur al-din ibn Zangi and endowed to his madrasa in Damascus in 562/1166–7.

Small manuscripts like this copy of the Koran were needed for instruction in the many madrasas founded at this time. Its script exemplifies the type of firm, upright, and sober *naskh* used in Syria and the Jazira in the mid-twelfth century for a variety of texts and shows the increasingly standardization of *naskh*.

Koranic verse, is written in a tall and angular form of broken cursive.³⁵ The text has been spaced out to make a matching double page, with Sura 1 filling the right page and facing the opening verses of Sura 2. Ibn al-Bawwab, by contrast, included all of Sura 1 and the opening five verses of Sura 2 on the first page of text in his Koran manuscript.³⁶

Yet another style of round *naskh* – and one that resembles the *naskh* that we know today – was used at Zangid courts in Syria and the Jazira, as shown by a small (19 × 16 cm) sixty-volume Koran manuscript (Figure 6.10) transcribed by 'Ali ibn Ja'far ibn Asad al-katib (the secretary) in 562/1166–7.³⁷ The manuscript was clearly an official commission, for a note, probably in the hand of the same copyist and dated to the same year, records that the manuscript was endowed to the madrasa in Damascus founded by Nur al-Din Abu'l-Qasim Mahmud ibn Zangi, ruler there from 1147 to 1174. Furthermore, the same copyist transcribed a Koran commentary bearing an identical endowment notice.³⁸

'Ali ibn Ja'far used a firm and elegant *naskh*, with *thuluth* and broken cursive as display scripts. Although most other Koran manuscripts copied in round scripts during this period have an odd number of lines per page, this one is distinctive in having an even number (four).³⁹ The script owes its strength to the firm and compact strokes.

The letter *alif*, which measures five times the dot used for punctuation, is straight, typically without serif at the top right or bent foot at the bottom left. In final position it is vertical, but independent *alif* is pitched some 2° to the left. Bold diagonal strokes set at a 30° angle mark *fatha* and *tanwin*, and a strong downstroke like a dagger marks *kasra*, a stroke adopted from the larger, more rounded display scripts that Ibn al-Bawwab had used for headings.⁴⁰ Connected *mim* has a similar downstroke for its tail and a body written not as an open loop but as tangent down and upstrokes that produce a heavy wavy line. Unconnected letters are occasionally elided, as in *dal* and final *ha*. Despite its small size (each page is about the same area of those in the Koran manuscripts in broken cursive (Figure 6.1 and 6.2) and one-quarter the area of the large manuscripts made at Isfahan and Hamadan (Figures 6.8 and 6.9), the text is clear, an necessary asset for manuscripts designed for instruction in a madrasa. This type of bold and readable *naskh* was used for many other fine manuscripts produced in the area at this time,⁴¹ showing the gradual codification of a regional style.⁴²

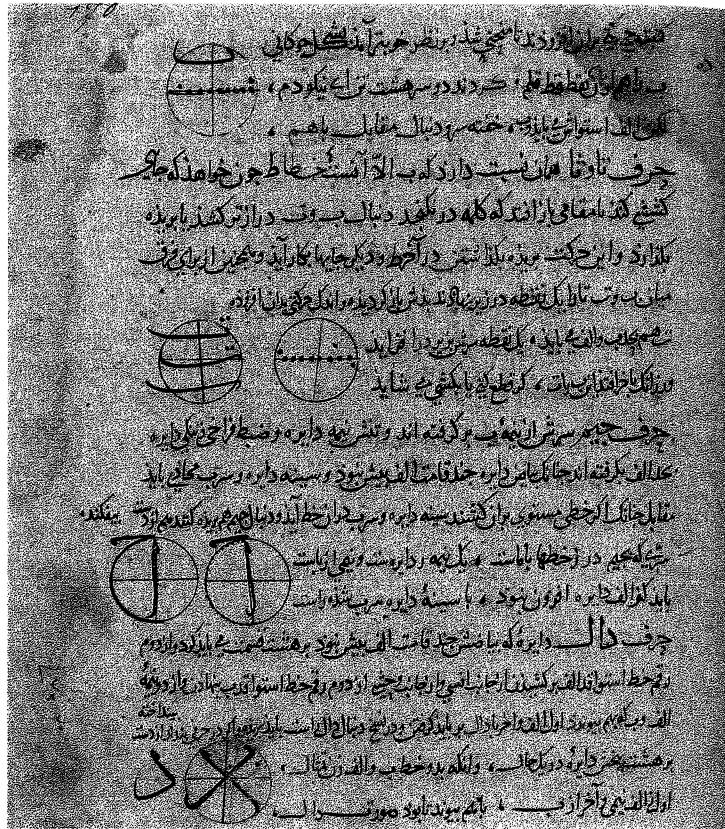
Toward a codification of round scripts

The manuscripts illustrated in the previous section show how copyists working during these centuries tried several different methods to monumentalize round scripts and canonize them in distinct styles. Texts on calligraphy tell the same story. The first surviving account describing how these round scripts were based on a system of rhomboid dots formed by pressing the reed pen on paper was put together at this time by the Persian historian Najm al-Din Abu Bakr Muhammad (or Mahmud) Ravandi. Born in Ravand near Kashan, he spent the decade 1174–84 studying Hanafi jurisprudence (*fiqh*) and learning calligraphy from his uncle Taj al-Din Ahmad. It must have been a comprehensive course, for Ravandi claims to have mastered seventy scripts and also learned the arts of bookbinding and gilding (*tadhhib*).⁴³

A connoisseur of the arts of the book, Ravandi composed a treatise on the principles of calligraphy. The work is now lost, but the author included a chapter of it in his history of the Saljuqs, *Rahat al-sudur wa ayat al-surur*, a work he presented to the Saljuq sultan of Rum, Ghiyath al-Din Kaykhusraw, at Konya in 1207. The only surviving copy of Ravandi's history is a unique manuscript transcribed in a careful *naskh* by the scribe al-Hajj Ilyas ibn 'Abdallah al-Hafiz and finished at the beginning of Ramadan 635/17 April 1238.⁴⁴ A previous owner of the manuscript added the epithet al-Qunyavi (from Konya) at the end of the scribe's name, suggesting that the manuscript may have been copied there, perhaps from the original. The ten-page chapter on calligraphy comes at the end of the historical text, among such sundry subjects as shooting with arrows, horseracing, chess, and betting (technically, the method of calculating the results of contests between rivals).

Figure 6.11 Page from a copy of Ravandi's history *Rahat al-Sudur* transcribed by Ilyas ibn 'Abdallah al-Hafiz, probably at Konya, and finished at the beginning of Ramadan 635/17 April 1238.

The drawings in this manuscript are the first surviving evidence for the system of rhomboidal dots used to measure the letters in various round scripts. This page shows the letters *ba'* to *dal*.



According to Ravandi, the letters of the alphabet are constructed of combinations of the circle or its segments and the straight line, its diameter. He identifies the circle and its diameter with the world and the equator, respectively. Applying this concept to writing, he divides the diameter of a circle into ten rhomboidal dots. Taking each of the nineteen homographs in turn, he describes its shape, ending with a verse that epitomizes the form. In many cases (specifically, *alif*, *dal*, *ra'*, *kaf*, *lam*, *mim*, *nun*, *waw*, and *lam-alif*), he distinguishes the methods of constructing the letters in various round scripts, mentioning *naskh*, *thuluth*, *riqa'*, and *muhaqqaq*.⁴⁵ The textual descriptions are accompanied by drawings that illustrate Ravandi's theories (Figure 6.11).⁴⁶

Alif, according to Ravandi, is upright like a human and measures ten dots high in all scripts that are complete with ten, a reference to the ten days of fasting during the pilgrimage mentioned in Koran 2:196. In *thuluth* and *muhaqqaq*, it is permitted to have a dot-sized point or serif on the right (*wahshi*, literally wild) side of the upright stroke and another on the bottom of the opposite side, so that the upright stroke of the *alif* measures eight dots. *Ba'* is, like *alif*, ten dots and straight so that it is as wide as *alif* is tall. It has one dot on the right side on top of the first dot. Both the head and tail of *ba'* should

be one dot high, but when writing hurriedly, the letter becomes curved like a polo mallet. The letter *jim*, Ravandi says, has a top that is half the size of *ba'* (i.e., five dots wide), and a body that is half of a circle.

Reading Ravandi's text shows, however, that his descriptions are somewhat fanciful and that his geometric system of dots was drawn up after the fact and forced to fit an alphabet that had been constructed along other lines. His descriptions yield some letters with odd proportions. The tail of *jim*, for example, is much larger and rounder than is usual and stretched to fit a semi-circle. Some of Ravandi's descriptions are so convoluted as to make no sense without an illustration. He describes the letter *fa'*, for example, as a whole *ba'* with the upside-down head of *ba'* (*ma'kus-i sar-i ba'*) attached to it. *Qaf* is like *fa'*, but with two upside-down heads of *ba'*, a quarter of an *alif*, and a *ba'* at the end. It is difficult to see how a copyist could draw the letters following these instructions. Rather, Ravandi was trying to describe letters so that they fitted a mental landscape based on Aristotelian views of the universe. The copyist of the sole surviving manuscript of Ravandi's history, although transcribed only a generation after it was composed, clearly did not understand what was going on in the section on calligraphy, for sometimes the drawing simply does not illustrate what the text says. For example, Ravandi reports that some people say that the teeth of *sin* are like a carpenter's saw, but that this is wrong and that the teeth of *sin* should not be level. The illustration, however, shows a *sin* with teeth of equal height.

Ravandi was apparently trying to apply proportional theories to round styles of writing that were still in the process of development. Such theories of proportion (*tanasub*) were popular in the late tenth and eleventh centuries with mathematicians and philosophers such as Abu Wafa' al-Buzjani (d. 997–8), Ibn Haytham (d. 1039), and the Ikhwan al-Safa', or Brethren of Purity. Based on classical prototypes, these theories were a legacy of the translation of classical works that had taken place under the 'Abbasids in the ninth century. Ibn Muqla is later credited with developing the proportioned script (*al-khatt al-mansub*), but the system of dots was apparently not codified by the early thirteenth century when Ravandi tried to apply proportional theories to writing. Ravandi's text also shows that by the early thirteenth century the round scripts had not yet been codified into the three sets known as the Six Pens. Of the four scripts that he discusses, the one most frequently mentioned is *naskh*. It is sometimes paired with *muhaqqaq*. This is not, however, the way that the scripts were to be paired in later times in Iran (see Chapter 7).

Along with its illustrations, Ravandi's text is useful for the information it supplies about court patronage of copyists and the status of calligraphy in this period.⁴⁷ Ravandi belonged to a family of calligraphers. His other maternal uncle, Mahmud ibn Muhammad (brother of Ravandi's teacher Taj al-Din Ahmad), was also a fine calligrapher who taught calligraphy to the Saljuq sultan Tughril III from 579/1183.

According to Ravandi, when the sultan became proficient, he began to transcribe a thirty-part Koran manuscript, employing painters and illuminators to ornament it and spending one hundred Maghribi dinars on each of the thirty parts. Mahmud took this occasion to introduce his nephew to the sultan, and Ravandi claims that he himself was responsible for most of the illumination in the Koran manuscript.⁴⁸

Ravandi continues that Tughril penned another small copy of the Koran, meant to be carried on his person. When his calligraphy master, the historian's uncle Mahmud, went to Mazandaran in 585/1189, he presented the small Koran manuscript, along with a letter in the sultan's handwriting, to the ruler there. Ravandi's text confirms that different sizes and formats of Koran manuscripts were used for different purposes. It also shows the connection between official correspondence and fine manuscripts and tells us that a finely calligraphed and illuminated book was deemed an appropriate gift from one prince to another.

Pairs of text scripts

In addition to experimenting with individual styles of text script, which were often juxtaposed to other display scripts, copyists in these centuries also interspersed two or more text scripts on the same page. The juxtaposition of large and small scripts was particularly suitable for multilingual copies of the Koran, as in the four-volume manuscript with interlinear Persian translation and commentary by Abu Bakr 'Atiq al-Surabadi that was transcribed by Muhammad ibn 'Ali ibn Muhammad ibn 'Ali al-Nishapuri in 584/1188–9 for the Ghurid amir Ghiyath al-Din Muhammad ibn Sam (Figure 1.6). Like the Hamadan Koran probably made at the court of the Great Seljuqs (Figure 6.9), the Ghurid copy was a luxury manuscript, slightly larger (41 × 33 cm) and with much gold illumination. It too has a well-attested provenance: in 654/1256 Qutb al-Din Muhammad, one of the shakys at Turbat-i Shaykh Jam, endowed the manuscript to the shrine of his grandfather Ahmad Jami, where it remained until 1898 when it was transferred to the Iranian National Museum.⁴⁹

The standard page in the Ghurid Koran codex has six lines of sturdy black script for the Koranic text and six lines of smaller black script for the Persian translation. The text script is closest to *thuluth*: it is a large horizontal script with flattened bowls and typical letters such as *alif* slightly pitched to the left with right hook and left-curving foot. Tails of letters like *ra* dart upwards, but *mim* ends in a vertical stroke. Diacriticals are added with a thinner pen. The translation is written in a small serifless *naskh* using the old dotted form of *dal* and smaller letters to distinguish *muhmila* letters like *'ayn* from their homographs. The copyist's hand is somewhat ungainly: the last words in the line are often thinner and lighter than the first, an effect akin to the lightening of individual letters in the Bust Koran (Figure 6.6a). The finest effort was reserved for the elaborate illumination,

which occupies one-half of the written surface in this left half of the double page marking the middle of the text.

Just as copyists played off large and small scripts for text and commentary in Koran codices, so too scribes juxtaposed similar pairs in documents. We know this from a remarkable cache of pilgrimage certificates preserved in the Umayyad Mosque of Damascus.⁵⁰ The group comprises 150 rolls (*rotuli*), ranging in date from 476/1084 to 710/1310. They are juridical or legal documents certifying in the name of witnesses whose signatures are inscribed at the bottom that a certain person executed the greater and/or lesser pilgrimage (*hajj* or *umra*) in the name of a third party who was unable to do so. In size, they originally measured 20–50 cm wide and up to 210 cm long, though most are now fragmentary.

One of the few intact examples is a roll dated to the last ten days of Shawwal 594/24 August–3 September 1198 (Figure 6.12).⁵¹ Like most early rolls, this one is made of two sheets of fine cream-colored paper pasted together lengthwise. Each sheet measures about 56 by 42 cm and has five or six evenly spaced laid lines per centimeter. Also like most early rolls, this certificate is entirely calligraphic. It is inscribed in black ink with panels containing single lines of large and medium-sized *thuluth* alternating with slightly shorter panels containing double lines of smaller *naskh*. At the top is the basmala, written in a large and stylized *thuluth*. Next comes a line of smaller *thuluth* saying that the certificate attests to both the greater and lesser pilgrimages (*hajj* and *umra*). The other panels of heavy black *thuluth* contain Koran 9:21–2, promising believers God's mercy, pleasure, and gardens of enduring delight in which they will dwell forever. The smaller interlinear text contains the attestation, including the date and the signatures of three witnesses at the bottom. These last two lines are written in a sloppier hand, probably because they were added to a document that had been prepared in advance.

The document represents fine calligraphy designed for exhibition. The *thuluth* is stylized, with a marked contrast between the thick letters and the almost hair-like terminals, especially on final *mim*, *ha'*, and *ra'* and the left foot of independent *alif*. The basmala is particularly extreme. It is stylized in the fashion of Ibn al-Bawwab, but with an extra long extender between the *sin* and *mim* of *bism* serving as a bridge beneath which are written the last two words, *al-rahman al-rahim*. The final *nun* of *al-rahman* is a large swooping stroke that encompasses most of the following word *al-rahim*, whose long descending tail matches the preceding stroke. Penned with a thick stroke, this invocation was meant to be identifiable from afar. It contrasts to the smaller and more hurriedly written *naskh*, which also contains several unauthorized connections, especially in familiar words and phrases such as *allah ta'ala* (God the Great).

Altogether, the calligraphy shows that the scroll was meant to be seen as much as read, a function confirmed by its physical aspect. Large and heavy documents like this one were made for display, probably on

Figure 6.12 Roll attesting to the completion of the Greater and Lesser Pilgrimages (hajj and 'umra) in the last ten days of Shawwal, 594/24 August–3 September 1198.

These large scrolls, meant to be hung on the wall, are legal documents signed by witnesses attesting that someone had performed the pilgrimage on behalf of a third party who was unable to do so.

Early examples like this one are calligraphed in a combination of scripts, with a large *thuluth* used for the invocation and a Koranic text (9:21–2) about Paradise and a smaller *naskh* written in double lines for the description of the pilgrimage. They were prepared in advance and the date and signatures of the witnesses added at the bottom in a sloppier hand.



the walls of a mosque or house. Some rolls still have traces of glue on the back; others were once framed. They were intended to attest to the pilgrim's prestige, even if he had earned his title *hajji* thanks to the paid services of a substitute. A roll like this one marks the epitome of monumental and monochrome calligraphy. From this time onward, the visual aspect of these rolls was dramatically altered by the addition of pictures to supplement the words. Schematic illustrations of the holy stations visited along the journey, first hand-painted and then block-printed, were inserted between the lines of text, which in turn was written in various scripts, colored, and block printed as well.⁵² In these later rolls, the image begins to replace the word.

In both the Ghurid Koran manuscript (Figure 1.6) and the pilgrimage scroll (Figure 6.12), the copyists used different scripts to call attention to different types of text, typically juxtaposing a large script for the Koranic text against a smaller one for the non-Koranic. Such a juxtaposition of large and small scripts was a natural evolution of the different scripts used for text and display, particularly in Koran codices. In this period, copyists also came to use two scripts within the Koranic text itself, a development possible in part because of the large sheets of paper now available for these codices. The first dated example using two scripts for the Koranic text to survive (Figure 6.13) is a large (43 × 31 cm) manuscript finished on 15 Jumada I 582/3 August 1186 and signed by 'Abd al-Rahman ibn Abi Bakr ibn 'Abd al-Rahim *al-katib al-maliki*.⁵³ His epithet, 'the royal secretary,' implies that he worked for one of the local rulers who proliferated in Iran and surrounding areas with the decline of the Great Saljuqs. 'Abd al-Rahman also bears the epithet *zarin qalam* (golden pen), indicating how highly he was esteemed.⁵⁴ He was clearly trying to show off his virtuosity in this ambitious codex.

A typical page in this Koran manuscript has nineteen lines of script. The upper, middle, and bottom lines are written in a large script. Its modest sublinear flourishes and pointed tails resemble *muhaqqaq*. But it also includes unauthorized connections between letters, notably to *alif* (Figure 6.13a). Sandwiched in between are sixteen lines of a smaller script, eight in the upper half of the page and eight in the lower. The small script is somewhat of a hybrid. In later times *muhaqqaq* was typically paired with its smaller counterpart *rayhan*, and both scripts in this manuscript share certain features such as pointed tips and *alif* with a serif. Nevertheless, the small script lacks some of the characteristic features of the *rayhan* used in later times, such as the spacious and upright quality and the flat dots. In some ways it looks like regular *naskh*. But it too includes unauthorized connections (Figure 6.13b) typical of a scribal hand. The copyist's unfamiliarity with juxtaposing different sizes of text script is clear from the bottom line, where he ran out of room and had to squeeze in the last word vertically (Figure 6.13c).

Not content with simply juxtaposing these two scripts within the text, the copyist 'Abd al-Rahman *zarin qalam* used *thuluth* for the



Figure 6.13a



Figure 6.13b



Figure 6.13c

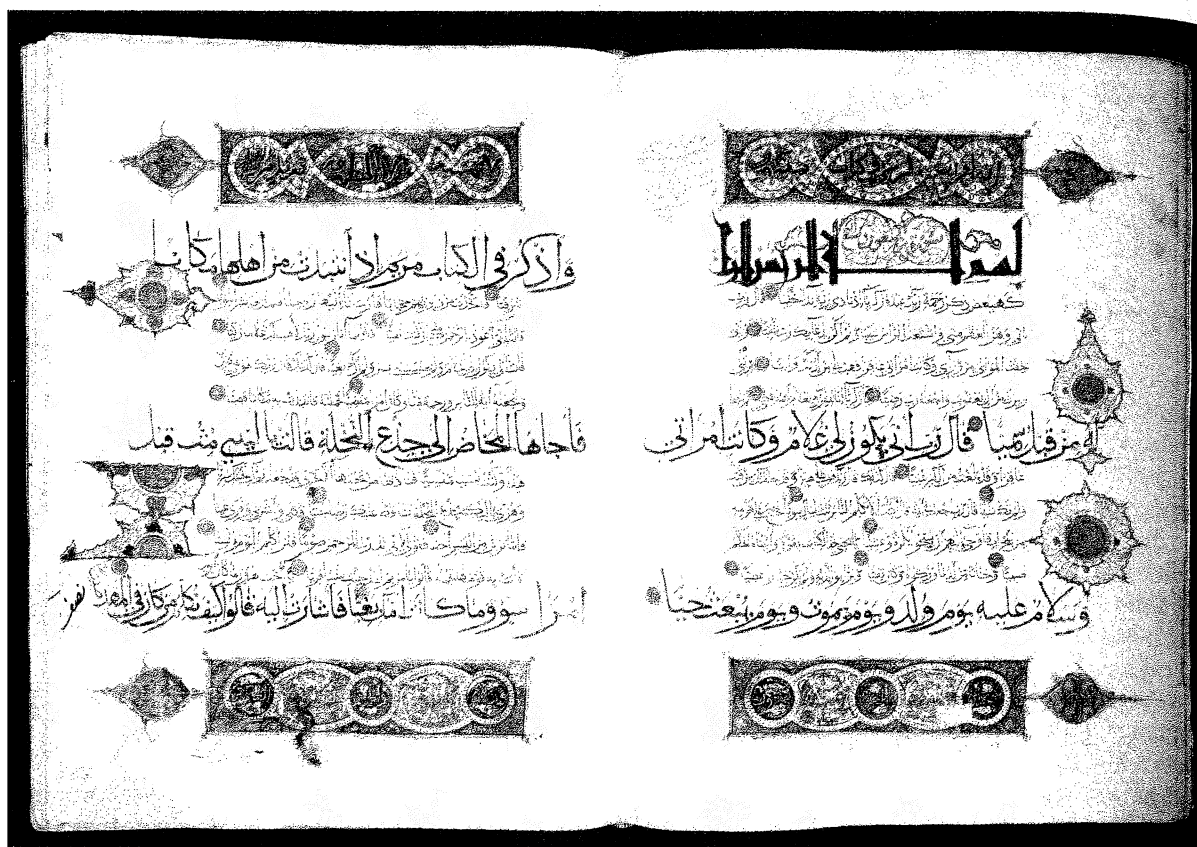


Figure 6.13 Double page containing Sura 19:1-29 from a Koran manuscript with nineteen lines per page copied by 'Abd al-Rahman ibn Abi Bakr ibn 'Abd al-Rahim al-katib al-maliki (the royal secretary) known as zarin qalam (golden pen) and finished on 15 Jumada I 582/3 August 1186.

This large and ambitious copy of the Koran juxtaposes various scripts. Headings and incidentals are done in broken cursive and *thuluth*; the large lines at the top, middle and bottom in a stately script that shares many features of *muhaqqaq*; and the rest of the Koranic text in a small script that falls between the classic styles of *naskh* and *rayhan*. This elaborate double page marks the middle of the manuscript.

sura titles that he squished into the middle of the basmala, itself penned in an extremely stylized broken cursive. Marginal ornaments include large and rather ungainly palmettes containing the word five (*khamsa*) and roundels containing the word ten (*ashara*). This spread marking the middle of the text also has elaborate decorative panels with Koranic passages at the top and bottom. The word God (*allah*), His attributes, and *sura* titles are picked out in gold,⁵⁵ the basmala and much of the decoration is done in silver. The overall effect is somewhat cluttered, particularly with the addition of Persian glosses in red, like the one at the top right here containing a prophetic Tradition about the reading of this *sura*.

What is novel in this manuscript is the use of two sizes (and even two scripts) for the same text. This format of alternating scripts

within a continuous text become popular in later times for Koran manuscripts made in Iran and its environs (Figure 7.12), but was rarely adopted in Egypt and the west. Not content with simply penning a formal script worthy of transcribing God's word on a large scale, the copyist here was trying to show off his own cleverness by juxtaposing different sizes and shapes of script. Collectable works like this one set the stage for the assembling of individual calligraphic specimens, a taste that came to the fore in Iran and its environs in the period after the Mongol invasions.

Interlinear juxtaposition was not the only way that copyists in the eastern Islamic lands played off two scripts. They could pen them separately in blocks, as shown by a large commentary on the Koran (Figure 6.14) transcribed by Muhammad ibn Muhammad al-ʿAmid al-Imam Awhad al-Din *al-khattat* (the calligrapher) in 630/1232–3.⁵⁶ The text was composed in 545/1151 by Muʿin al-Din Muhammad al-Nishapuri, a *littérateur* at the court of the Ghaznavid ruler Bahramshah. To judge from the multi-colored ornament, this copy was probably done in the same area. The block at the bottom contains three lines of Koranic text done in gold outlined in black in a script that can be identified as *thuluth*. It is particularly curvaceous. The left foot of *alif* is pronounced, as at the end of line two. Final *mim*, *taʾ marbuta*, and *raʾ* end with substantial hooks, and final *nun* is a large diagonally pitched bowl that encircles the following letter or syllable. The curving style extends between letters as well, for the copyist made unauthorized connections, as between *alif* and *ʾayn* in the word *lil-saʿa* in the first line (Figure 6.14a), a connection that is not permitted in standard *muhaqqaq* (Figure 6.8c). Several features of Muhammad ibn Muhammad's pointing are also distinct, as here with three dots below the letter *sin* to distinguish it from *shin*.

The block at the top contains seven lines of Koranic commentary, penned in an equally free-flowing *naskh*. Words are no longer posed on a flat baseline, but slope decidedly downward from right to left, a slant that will eventually develop into the sloping style known as *nastaʿliq* (see Chapter 7). Individual letters are equally prescient. *Dal* sometimes connects to final *haʾ*, as in the word *banda* in the top line (Figure 6.8b). This unauthorized ligature, found also in the Zangid Koran, was typical of *naskh* and later became known as the Yaquti connection, after the renowned thirteenth-century calligraphy Yaqut al-Mustaʿsimi (see Chapter 7). Also noteworthy is the curvaceous final *alif* in the word *payghambari* in line two: it swoops upwards and back to encircle the preceding group of letters.

In the colophon the copyist of this Koran commentary, Muhammad ibn Muhammad al-ʿAmid al-Imam Awhad al-Din, bears the epithet *al-khattat* (the calligrapher). This epithet attests to the changing status of copyist in the middle period. One of the few signed Koran manuscripts dating from the tenth century, a fragment in broken cursive made at Rayy in 389/998–9 and now in the shrine museum at Mashhad, is signed by al-ʿAbbas ibn Muhammad ibn al-ʿAbbas

Figure 6.14 Page with three lines containing Sura 43:61–2 of the Koran at the bottom and seven lines of Persian commentary at the top, transcribed by Muhammad ibn Muhammad al-'Amid al-Imam Awhad al-Din al-khattat (the calligrapher) in 630/1232–3, probably in eastern Iran.

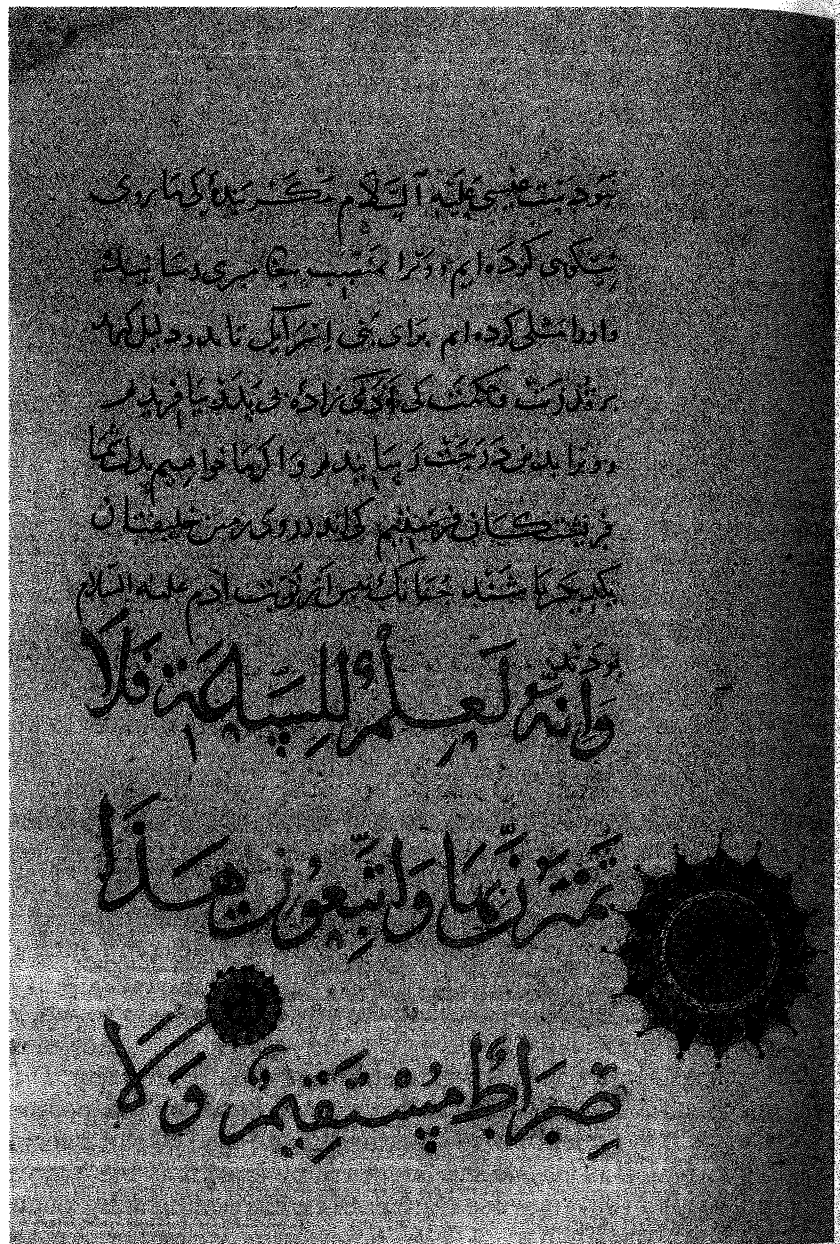
This page from a Koranic commentary shows another method of juxtaposing large and small scripts that was particularly popular in Iran and the eastern Islamic lands. The Persian commentary at the top is written in *naskh*, the Koranic text at the bottom in a large and elegant *thuluth* in which the gold letters are outlined with black or red. Both scripts are notable for their curves and unauthorized ligatures.



Figure 6.14a



Figure 6.14b



al-Qazvini, who is identified as *al-musahifi* (the copyist of Koran manuscripts).⁵⁷ Signatures from the eleventh century typically include the epithet *al-warraq* (copyist or bookseller).⁵⁸ This was the case, for example, with 'Ali ibn Ahmad, the person who claimed responsibility for the Nurse's Koran endowed to the Great Mosque of Kairouan in Ramadan 410/January 1020 (Figure 5.5); with 'Uthman ibn Husayn, who transcribed the copy of the Koran in broken cursive dated 466/1073–4 (Figure 6.2); and with Abu Bakr Muhammad ibn Abi Raff,

who transcribed the treatise on the qualities of the Prophet c. 1050 (Figure 6.5). In the twelfth century, these epithets were often replaced by *al-katib* (the secretary), used in many manuscripts made in Iran and Syria (e.g., Figures 6.8, 6.9 and 6.10 as well as the copy of 'Imad al-Din's history of Jerusalem transcribed in 595/1199).⁵⁹ The term designates a scribe who worked in the state chancery. Muhammad ibn Muhammad al-'Amid al-Imam Awhad al-Din's epithet *khittat* marks a new stage. The term derives from the verb *khatta*, to write; the noun *khatt* is generally used to designate fine writing or calligraphy.⁶⁰ The appearance of this epithet shows that calligraphy had come of age in the middle period.

Maghribi script

At the same time that copyists in the eastern Islamic lands were refining round scripts, their counterparts in the Islamic west were developing a distinctive round style dubbed *maghribi*. As in the east, the round script used in the Islamic west was written in different sizes and forms. Scholars, beginning with Octave Houdas' 1886 article on *maghribi* scripts, have tried to assign geographic names to the various sizes and styles.⁶¹ Perhaps on analogy with the three pairs of majuscule/minuscule scripts that make up the Six Pens, *maghribi* scripts are often juxtaposed as a pair of opposite sizes: *andalusi*, from al-Andalus, the Arabic name for the Iberian peninsula, is often used for a small, compact variant that is the counterpart of a larger and looser style known as *fasi* (literally from Fez in Morocco). By the sixteenth century the two are said to have merged into one average-sized script.

These names, however, are modern and cannot be taken as representative of geographic production. Manuscripts from the same city were transcribed in different scripts, and manuscripts from different places were sometimes transcribed in similar scripts. We should not be surprised by the intermingling of scripts, for scholars and copyists often moved, especially in this volatile region. One need think only of the theologian and philosopher Ibn Rushd (1126–98), known in the West as Averrôes, who traveled regularly through the Almohad domains, from Córdoba to Marrakesh, being variously chief judge and an exile. Large objects were moved as well. The most spectacular example is the enormous (it measures almost 4 meters tall) and splendid minbar ordered on 1 Muharram (New Year's Day) 532/19 September 1137 by the Almoravid ruler 'Ali ibn Yusuf.⁶² Made in Córdoba, it was shipped in pieces some eight hundred kilometers across the Straits of Gibraltar and over the Atlas Mountains to be installed in the new congregational mosque that the sultan had founded in Marrakesh.⁶³

Manuscripts moved accordingly. For example, a codice on prophetic Traditions made in Valencia in 568/1172–3 was read aloud in the mosque at Córdoba sixteen years later.⁶⁴ As more and more

manuscripts from this region are published, we are learning that they were copied at many more sites than had been recognized previously. In this period alone, we know of manuscripts transcribed in Córdoba, Málaga, Seville, Valencia, Ceuta, and Marrakesh. Until we have a clear analysis of the characteristics of the different variants, it seems best to steer clear of geographic rubrics and group the scripts under the heading *maghribi* with an adjective denoting relative size (small, medium-sized, or large).

Maghribi script is visually distinct. Descending letters have large bowls with swooping curves. The shafts of the letters often swell at the top, and they, like most initial strokes, begin with a left serif. The strokes on *fa'* and *kaf* are generally diagonal and contrast with the rounded bodies of these letters. Final *alif* ends with a spur or point at the bottom. *Sad* is a smooth lozenge, without any initial bump. Most of these features are found in the typical round hand used in 'Abbasid times (see Chapter 5), especially the type of broken cursive used in Koran manuscripts made in Sicily (Figure 5.4) or Tunisia (Figure 5.5) at the turn of the tenth to eleventh century. *Maghribi* script differs, however, from broken cursive in having strokes with a more uniform thickness in which the differences between thick and thin are much less pronounced. This more uniform stroke may well be due to the way the copyist cut his pen.⁶⁵

In addition to its visual distinctiveness, *maghribi* script also uses a different system of pointing and vocalization. To distinguish *fa'* from *qaf*, the former is pointed with a single dot below the letter, whereas the latter has a single dot above the letter. These letters thus differ from the standard form used in the east (and in modern typography) where *fa'* and *qaf* are marked with one or two dots above the letter respectively. The *maghribi* system is also distinct from that used in early Islamic times, as at the Dome of the Rock (see Chapter 3), where almost the opposite system is found (*qaf* is pointed with one stroke below the letter to differentiate it from *fa'*, which is pointed with one stroke above the letter). The archaic system of pointing *fa'/qaf* was already in use by the tenth century in the Maghrib and shows up in the scant surviving handful of manuscripts made across the region from Andalusia to southern Italy.⁶⁶ Furthermore, in the *maghribi* tradition, *hamzat al-qat* 'is marked with a red or yellow dot and *hamzat al-wasl* with a green dot, the same system that had been used in certain kufic Koran manuscripts that are ascribed to the region (Figure 4.8). Monumental inscriptions from the Maghrib also show distinctive spelling and orthography, including writing out the long *alif* in words such as *hadha*.⁶⁷ The different system of vocalization may also reflect different pronunciation in the West, for Koran manuscripts made in North Africa have a red dot under the letter to indicate *ʿimāla*.⁶⁸ These *maghribi* variations in pointing and orthography parallel the distinctive system of *abjad* numbering used in the region.⁶⁹

There are several possible reasons why such a distinctive style of round script developed in the Islamic west. With its sweeping curves,

this style was particularly appropriate for the material and format of the Koran manuscripts made there. Parchment remained in use in this region at least until the fourteenth century, long after it had been replaced by paper in the east. *Maghribi* Koran manuscripts also have a distinctive shape: they are often small and square, measuring some 18 cm on a side. The distinctive *maghribi* style of script may also be the result of the method used to train copyists. According to Ibn Khaldun, the renowned fourteenth-century historian from North Africa, in the Maghrib calligraphers were trained to write whole words.⁷⁰ Calligraphers in the east, by contrast, were trained to write separate letters.

Déroche amassed the evidence from extant manuscripts to prove that a distinct style of script had already developed in the Maghrib by the middle of the tenth century.⁷¹ The first surviving manuscript in *maghribi* script that he identified is a copy of Ishaq ibn Sulayman al-Isra'ili's *Kitab ma'rifa al-bawl wa aqsamihi* transcribed in 346/957, probably in Andalusia.⁷² From that point, the number of dated manuscripts in *maghribi* script increases, to reach more than a dozen by the end of the eleventh century. They include scientific, legal, and philological treatises as well as copies of the Koran and commentaries on it. Most are poorly published, and the study of the paleography and codicology of *maghribi* manuscripts is still in its infancy.

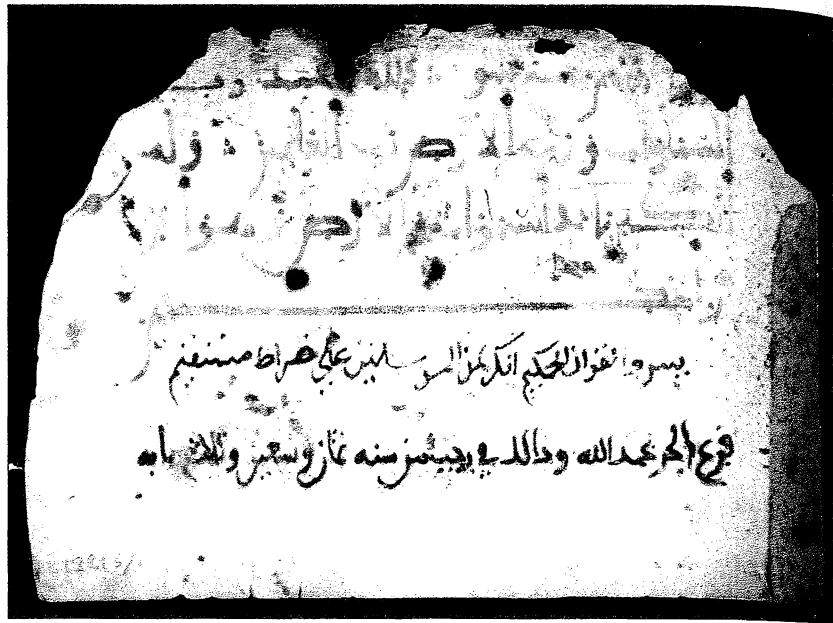
The fanciest of these manuscripts in *maghribi* script were, as elsewhere in the Islamic lands, Koran codices. The earliest so far identified date to the beginning of the eleventh century. They include two fragmentary folios in Istanbul, each with four lines of text, written in brown ink on an oblong sheet of parchment.⁷³ The earlier (Figure 6.15) contains the end of the twenty-fifth section, followed by a two-line colophon stating that the section (*juz'*) was finished in Rajab 398/March–April 1008. The later contains the end of the Koran (113:4–114:6) followed by a colophon, written in an angular kufic script, saying that the manuscript (*mushaf*) was completed on 6 Safar 432/16 October 1040. The Tarek Rajeb Collection in Kuwait has recently acquired a slightly earlier copy of the Koran in a similar format, but with a more compact script. Unlike the two folios in Istanbul, this manuscript is amazingly complete, bound in two volumes, and dated 393/1002–3.⁷⁴

The script used in these three manuscripts, especially the two fragmentary ones in Istanbul, exemplifies the fully fledged *maghribi* style, notable for its sweeping curves on final letters like *nun* and *sad*. Final *alif* descends below the line. Final *ba'* is written like an inserted comma. *Sin* is written with little teeth that resemble a saw. *Sad* and *kaf* have rounded bodies and sloping tops. *Dal* looks like pursed lips seen from the side, as in the penultimate word of the first line *al-hamd*. *Ha'* is also distinct: the initial form looks like a boot turned to the left (as in *huwa*, the penultimate word in the penultimate line of the Koranic text). The script on the earlier folio in Istanbul, which is more spacious (the lines measure 2 cm, as opposed to 1 cm in the

Figure 6.15 Final page containing Sura 45:35–7 and a colophon of the twenty-fifth section (juz') from a thirty-volume parchment Koran manuscript with four lines per page completed in Rajab 398/March–April 1008.

The date in the colophon makes this manuscript one of the oldest copies of the Koran in *maghribi* script to survive.

It shows that the distinctive features of the *maghribi* script, vocalization, and pointing were already well established by the eleventh century. Like most manuscripts from the region, it is transcribed on parchment, but has an oblong format, whereas most later *maghribi* Koran manuscripts are square.



later page, and there is space for a pyramid of three balls to mark the end of a verse], is particularly stylized: note the extreme prolongation of medial *kaf* in the final word of the Koranic text, *al-hakim*.

In addition to the distinctive script, several features of pointing, vocalization, and orthography, added in red ink on the earlier fragment, are characteristic of the *maghribi* style. The letter *qaf* is pointed with one dot above the letter. Vocalization is marked by dots, with *shadda* marked by a half circle or carat, open towards the top when it corresponds to *fatha* and open at the bottom when it corresponds to *kasra*, the same system used in the Palermo Koran of 372/982–3 (Figure 5.4). Dagger *alif* is added to fill out the *scriptio defectiva* of the Koranic text, as in *al-'alamin* or *al-samawat*, or in words such as *dhalika* in the last line of the colophon. Many of these features of script, pointing, and vocalization are found in other, fancier Koran manuscripts made later in the region, such as one dated 483/1090–1, which shares the rectangular shape but is portrait in format rather than landscape.⁷⁵

These three early Koran manuscripts stand at the head of a group of some two dozen dated copies made in Andalusia or North Africa over the next three centuries.⁷⁶ The materials, script, and illumination are not exclusive to Koran manuscripts copied there. Other works, such as a treatise on Traditions copied at Valencia in 568/1172–3 and a copy of the treatise by the founder of the Almohad dynasty Ibn Tumart, *Aazz ma yutlab*, transcribed in 590/1193–4, show the same style.⁷⁷ All but one of the Koran manuscripts are copied on parchment.⁷⁸ The same style of script was also used for illustrated secular works, of which at least three are known.⁷⁹



In the first half of the twelfth century, the city of Córdoba, despite political instability and shifting rulers, became the center of an artistic renaissance, regaining the intellectual, artistic, and social preeminence it had held over a century earlier under the neo-Umayyads. In addition to the fabulous minbar made there in 532/1147 and shipped to Marrakesh, the finest Koran manuscripts were transcribed in that city, to judge from a copy dated 538/1143.⁸⁰ Although typically small (18 × 19 cm), this codex is remarkable for several frontis- and finispieces that relate to contemporary architectural decoration, and the knotted kufic used as a display script is remarkably similar to that found on the minbar.⁸¹

In the second half of the twelfth century, the center of fine manuscript production in the Maghrib shifted to Valencia.⁸² The best-known copyist there was Abu Muhammad 'Abdallah ibn Muhammad ibn 'Ali ibn Mufrij ibn Sahl al-Ansari, known as Ibn Ghattus. He was already renowned in his own time, for he is mentioned in the *Takmila*, the biographical dictionary written by Ibn al-'Abbar, the historian, Traditionist, *littérateur*, and poet who lived in Valencia from 1199 to 1260.⁸³ Like his contemporary Ravandi, who worked at the opposite side of the Islamic lands, Ibn Ghattus came from a family of copyists: he ran a family business that seem to have specialized in transcribing the Koran.⁸⁴ Ibn Ghattus also taught calligraphy to outside pupils, such as the imam of the mosque known as Rahbat al-Qadi.

Manuscripts in the hands of Ibn Ghattus and his contemporaries (Figure 6.16) are typically small, square, single-volume codices transcribed in the standard spindly form of *maghribi* script with

Figure 6.16 Double page containing Suras 61:14–64:17 from a single-volume parchment Koran manuscript with twenty-five lines per page copied at Valencia by Yusuf ibn 'Abdallah ibn 'Abd al-Wahid ibn Yusuf ibn Khaldun in 596/1199–1200.

This small Koran manuscript exemplifies the type transcribed in the Maghrib in this period. Most have some twenty-five lines of spindly *maghribi* script written in thin brown ink with illumination, frontis- and finispieces in gold. The script is distinctive: letters typically have looped descenders, *sad* lacks an initial bump, and *qaf* is pointed with one dot above the letter.

twenty to twenty-five lines per page.⁸⁵ The densely packed pages are enhanced by copious illumination, including frontis- and finispieces, chapter headings, marginal medallions, and colophons. The proliferation of this type of codex coincides with the proselytization of the region under the Berber dynasty of the Almoravids.⁸⁶ These revivalist reformers apparently created a large market for such manuscripts, which were often commissioned by private individuals, probably for personal use.⁸⁷

The text script used in this copy penned by Yusuf ibn 'Abdallah ibn 'Abd al-Wahid ibn Yusuf ibn Khaldun is a typical *maghribi* hand, written in brown ink, with red for vocalization and blue for other signs except for the characteristic green dot for *hamzat al-wasl* and yellow dot for *hamzat al-qat*. The display script is a typical *maghribi* kufic, with chapter headings written in gold. Individual verses in this manuscript are not usually marked, although occasionally they are set off, as in other contemporary copies, by a pyramid of three gold balls.⁸⁸ Groups of verses are marked by gold ornaments: a pointed oval for five and a circle for ten. The text is divided into sixtieths (*hizb*), marked by circular ornaments, as here at the top of the right page, where the sixtieth coincides with the beginning of the *sura* and so the marginal palmette is inscribed with a circle bearing the word *hizb*.

In penning their texts, *maghribi* copyists like Yusuf ibn 'Abdallah showed an inclination for symmetry that made the layout of their pages different than that found in the east. For example, they stylized the basmala differently. According to the eastern tradition, known since the time of Ibn al-Bawwab (Figure 5.8) and seen in later manuscripts such as the one penned by Yaqut in *rayhan* (Figure 7.1) and by his Mamluk counterparts in both *muhaqqaq* (Figure 8.1) and *naskh* (Figure 8.5), copyists filled out the first line of a *sura* by stretching the connector between the *sin* and *mim* of the word *bism*. In the Maghrib, however, copyists regularly extended the connector between *ha'* and *mim* in *al-rahman* so that it occupies half or even three-quarters of the line. They thereby created a wide space in the center of the line that contrasts with the rest of the densely covered page and immediately draws the eye to the beginning of the *sura*.

Maghribi copyists sometimes treated the end of the *sura* in the same way. When finishing a *sura*, a copyist typically stretched the last words to fill out the line and then left a space in which to add a line of gold kufic script with the title and verse count of the next *sura*, as here on the left page with the end of *Sura* 63 (*al-Munafiqun*) and the beginning of *Sura* 64 (*al-Taghabun*). Sometimes, however, the copyist penned the last word or two of a *sura* in the middle of a line. The gold kufic text with the chapter heading was then added around these words, as on the right-hand page. Here the copyist even divided the numbers of the verse count, putting the *sura* name and the first digit of the verse count on the right and the rest of the verse count on the left side of the text word. The desire for symmetry has overridden any concern with readability.



Figure 6.17 Page containing Suras 30:59–31:4 from volume seven of a ten-volume parchment Koran manuscript with nine lines per page transcribed by the penultimate Almohad amir Abu Hafs 'Umar al-Murtada at Marrakesh in 654/1256.

This manuscript exemplifies the type of multi-volume Koran manuscript penned in the Maghrib during this period. It shows a larger variant of the typical *maghribi* script, with anywhere from five to ten lines per page and as few as two or three words per line. These manuscripts were often made for members of court and had elaborate gold decoration and gold-tooled bindings.

In these centuries copyists in the Maghrib also used a larger script for multi-volume Koran manuscripts. To judge from two twenty-volume copies in the library of the Ben Yusuf Madrasa in Marrakesh, these multi-part manuscripts were already made in the first half of the thirteenth century,⁸⁹ and many other undated copies may date from the late thirteenth century or early fourteenth. These multi-volume manuscripts typically have from five to ten lines of bold script per page, with as little as two or three words per line. The most illustrious is a ten-volume copy (Figure 6.17) transcribed at Marrakesh by the penultimate Almohad amir Abu Hafs 'Umar al-Murtada in 654/1256.⁹⁰ It is rectangular (28 × 22 cm) in format, though many other copies are square and the same size as the single-volume ones.

Done on parchment, Abu Hafṣ ʿUmar's manuscript shows the standard features of *maghribi* script and orthography. The calligraphy is, however, rather awkward, perhaps because the copyist was a prince rather than a master calligrapher. Note, for example, the double stroke for *lam* in *tilk*, the second word in the second line of Sura 31 (Luqman), the wavering *dal* in the same word, and the angled bend at the bottom of *nun*. Many other undated manuscripts show a smoother variant of this large script.⁹¹ Headings are typically done in a large square kufic, sometimes in panels and sometimes not. In the copy penned by Abu Hafṣ ʿUmar, for example, the *sura* title is written in white kufic set in an elaborate gold braided border.

As opposed to the single-volume codices in small script, these multi-part manuscripts in large script seem to have been associated with members of court.⁹² They often show a lavish use of gold, whereas cheaper copies are done with yellow paint. These large manuscripts also had fine bindings. The volumes from the copy penned by the Almohad amir in 654/1256, for example, retain elements of their original bindings of brown goatskin gilded and blind-tooled in strap-work patterns.⁹³ These are the earliest known examples of gold tooling on leather, a technique that did not appear on European bindings for another two centuries. They confirm the care and interest taken in books in the Maghrib at this time and show that during this transitional period calligraphers throughout the Islamic lands were experimenting with different types of round script.

Notes

1. In Roman script, minuscule is thought to be a devolution of the larger and more formal majuscule produced by kinesthesia; see Edward M. Catich, *The Origin of the Serif: Brush Writing and Roman Letters* (Davenport, IA, 1991 [1968]), 144.
2. This period corresponds to the later centuries of Hodgson's earlier middle Islamic period, outlined in his Book Three; Marshall G. S. Hodgson, *The Venture of Islam* (Chicago, 1974), 2:1–329.
3. The script in a seven-part Koran manuscript dated 592/1195 in Dublin (CBL 1435), for example, has been called variously *naskh* or *thuluth*. Arthur J. Arberry, *The Koran Illuminated: A Handlist of Korans in the Chester Beatty Library* (Dublin, 1967), no. 44; Yasser Tabbaa, 'The Transformation of Arabic Writing: Part 1 Qur'anic Calligraphy,' *Ars Orientalis* 21 (1991): table 3, labeled it *naskh*, but David James, *Qur'ans and Bindings from the Chester Beatty Library: A Facsimile Exhibition*, exhibition catalogue (n.p., 1980), no. 21, called it *thuluth*.
4. Dorothea Duda, *Islamische Handschriften I Persische Handschriften*, in *Die Illuminierten Handschriften und Inkunabeln der Österreichischen Nationalbibliothek*, Österr. Akademie der Wissenschaften, Phil. Hist. Klasse, Denkschriften, 167 (Vienna, 1983), 51–2, pl. 1–2. Born and raised in Tus in north-eastern Iran, the copyist and poet moved west, seeking the patronage of several local rulers in central and northern Iran. In the colophon to this manuscript, he identifies himself as the poet (*al-sha'ir*), and the year after he had transcribed the pharmacological text,

- he finished composing his epic poem *Garshaspnama*, which he dedicated to the local ruler of Nakhchivan. The pharmacology may have been transcribed there as well, but later the poet moved to the court of the Shaddadid Manuchihr at Ani.
5. These would correspond to what Derman called *warraqi* (or *naskhi-irāqi*) and eastern kufic, but they seem to me to be variants of the same script.
 6. The same flourishes are found, for example, in a copy of Muhammad ibn 'Umar Raduyani's *Tarjuman al-balagha* transcribed in 507/1113–14 by Abu'l-Hayja Daylamsupar (Istanbul, Fatih Library no. 5413; *Encyclopedia Iranica*, ed. Ehsan Yarshater [London and New York, 1985], 'Calligraphy,' pl. 34).
 7. The latest dated example I know in this script is a small (19 × 15 cm) manuscript with seventeen lines to the page (Mashhad, Astan-i Quds, no. 84) that was finished by Abu'l-Hasan 'Ali ibn Muhammad ibn Muhammad in mid-Ramadan 620/mid-October 1223, although its colophon may have been altered; see Ahmad Gulchīn-i Ma'ānī, *Rāhnāmā-yi ganjīna-yi qur'ān* (Mashhad, 1347), no. 43; Martin Lings, *The Quranic Art of Calligraphy and Illumination* (London, 1976), no. 21.
 8. The earliest of these multi-volume codices is this one (Figure 6.2) transcribed by 'Uthman ibn Husayn *al-warraq* (the copyist or bookseller) in 466/1073–4. The shrine at Mashhad is said to own sixteen parts of this manuscript, pages from which have often been reproduced; see, for example, Gulchīn-i Ma'ānī, *Rahnama*, nos. 21–2; A. U. Pope and P. Ackerman (eds), *A Survey of Persian Art from Prehistoric Times to the Present*, repr. 1938–9 (Tehran, 1977), pl. 930B; Lings, *Quranic Art*, pl. 11; *The Arts of Islam*, exhibition catalogue, Hayward Gallery (London, 1976), no. 504. The manuscript was endowed to the shrine in Rabi' II 614/July–August 1217 by 'Ali ibn Abi'l-Fadl. The same scribe signed another Koran manuscript with interlinear Persian translation dated Muharram 484/February–March 1091 (TKS EH 209; Ayman Fu'ad Sayyid, *al-Kitāb al-'Arabiyya al-Makhtūt wa 'ilm al-Makhtūtāt* [Cairo, 1997], pl. 7). The copyist Abu Bakr ibn Ahmad ibn 'Ubaydallah al-Ghaznavi signed at least two similar manuscripts, one dated Ramadan 566/June 1171 (Cairo, DK; Pope and Ackerman, *Survey*, pl. 930C) and another dated Muharram 573/June–July 1177 (TKS EH 42; Lings, *Quranic Art*, pl. 19; Fu'ad Sayyid, *Al-Kitāb al-'Arabiyya*, pl. 8; Tabbāa, 'Transformation 1: Qur'anic Calligraphy,' fig. 7; M. Uğur Derman, *The Art of Calligraphy in the Islamic Heritage*, trans. Mohamed Zakariya and Mohamed Asfour [Istanbul, 1998], no. 17). Other similar, but often undated examples are also illustrated in Lings, *Quranic Art*, 12–21.
 9. London, BL, Or. 6573; Martin Lings and Yasin Safadi, *The Qur'ān* (London, 1976), no. 39.
 10. The manuscript is dispersed among many museums and library, including, CBL ms. 1436 and TKS EH 12; see Beatrice Saint-Laurent, 'The Identification of of a Magnificent Koran Manuscript,' in *Les Manuscrits du moyen-orient: essais de codicologie et paléographie*, ed. François Déroche (Istanbul/Paris, 1989), 115–24.
 11. This is the case with the copy transcribed by 'Uthman ibn Husayn (Figure 6.2): according to the colophons from *juz* 1 and 22 (illustrated in Gulchīn-i Ma'ānī, *Rahnama*, 46–7), he wrote (*kataba*) and gilded (*dhahhaba*) the manuscript in 466/1073–4. Close study of the manuscript might prove whether this claim was true or whether he was merely the supervisor in charge of a team.

12. For example, broken cursive was used for headings in a small copy of the Koran (BL Add. 7214) transcribed in Jumada I 427/March 1036; Pope and Ackerman, *Survey*, pl. 928.
13. Paris, BN ms. arabe 2964. Bishr Farès, *Le Livre de la Thériaque: manuscrit arabe à peintures de la fin du XIIe siècle conservé à la Bibliothèque Nationale de Paris*, Art Islamique (Cairo, 1953); Richard Ettinghausen, *Arab Painting* (Geneva, 1962), 84–5; Marie-Geneviève Guesdon and Annie Vernay-Nouri (eds), *L'Art du livre arabe: du manuscrit au livre d'artiste* (Paris, 2001), no. 3. The most recent study of the manuscript is Jaclynne J. Kerner's 2003 Ph.D. dissertation from the Institute of Fine Arts, 'Art in the name of science: illustrated manuscripts of the Kitab al-diryaq.'
14. Farès, *Livre de la Thériaque*, pls. 20–1.
15. Vienna, Nationalbibliothek A. F. 10; Dorothea Duda, *Islamische Handschriften II Teil 1: Die Handschriften in Arabischer Sprache*, in *Die Illuminierten Handschriften und Inkunabeln der Österreichischen Nationalbibliothek*, Österr. Akademie der Wissenschaften, Phil.-Hist. Klasse, Denkschriften, 229 (Vienna, 1992), 40–69.
16. New York, Pierpont Morgan Library, ms. M. 500; Barbara Schmitz, *Islamic and Indian Manuscripts and Paintings in the Pierpont Morgan Library* (New York, 1997), no. 1.
17. Leiden University, ms. 437; S. M. Stern, 'A Manuscript from the Library of the Ghaznawid Amīr 'Abd al-Rashīd,' in *Paintings from Islamic Lands*, ed. R. Pinder-Wilson (Columbia, SC, 1969), 7–31.
18. Paris, BN, ms. arabe no. 6041; François Déroche, *Les Manuscrits du coran, du Maghrib à l'Insulinde*, Bibliothèque Nationale, Département des Manuscrits, Catalogue des Manuscrits Arabes (Paris, 1985), no. 522; *Splendeur et majesté: Corans de la Bibliothèque Nationale* (Paris, 1987), no. 36; Guesdon and Vernay-Nouri, *L'Art du livre arabe*, no. 44.
19. Sometimes we know this from close examination of a particular manuscript, as was the case with Ibn al-Bawwab, who both transcribed and illuminated his Koran manuscript. Sometime we know the role of the scribe from signed colophons. This was the case with 'Ali ibn Ahmad al-warraq, who claimed to write, vowel, mark, gild, and bind the Nurse's Koran (Figure 5.5). Similarly, 'Uthman ibn Husayn al-warraq and Abu Bakr ibn Ahmad ibn 'Ubaydallah al-Ghaznavi wrote and gilded their splendid Koran manuscripts made in 466/1073–4 (Figure 6.2) and 573/1177, respectively. Muhammad ibn 'Abd al-Wahid transcribed and painted the copy of the *Kitab al-Diryaq* dated 595/1199 (Figure 6.4).
20. The colophon in the last two lines on the left page is written in a similar script to that used in the rest of the text, but the letters are more crowded and undulating and the words written on a sharper diagonal slope. Abu Bakr Muhammad ibn Abi Rafi' al-warraq had similarly shifted from upright *naskh* to a more curved hand in the colophon to the treatise on the characteristics of the Prophet penned for the Ghaznavid amir c. 1050. Stern, 'Manuscript from the Library of the Ghaznawid Amīr,' fig. 8.
21. Déroche, *Manuscrits du coran II*, no. 522.
22. S. M. Stern, *Fatimid Decrees: Original Documents from the Fatimid Chancery*, All Souls Studies (London, 1964).
23. Stern, *Fatimid Decrees*, no. 6.
24. Edward William Lane, *An Arabic-English Lexicon* (London and Edinburgh, 1863), 3:1136.
25. Stern, *Fatimid Decrees*, 92.
26. Al-Nadīm, *The Fihrist of al-Nadīm: A Tenth-Century Survey of Muslim*

- Culture*, ed. and trans. Bayard Dodge (New York and London, 1970), 15. Some dictionaries designate the script using the plural *ruqa'*, but Ibn al-Nadim's text from the tenth century, as well as others such as the twelfth-century Ravandi, use the form *riqa'*, with a long *alif*.
27. *Thuluth* was used, for example, as a display script on the opening pages in a large Koran manuscript copied in broken cursive in 573/1177–8 by Abu Bakr Ahmad ibn 'Abdallah al-Ghaznavi (TKS EH 42; Lings, *Quranic Art*, no. 19). Compared to the *thuluth* used by Ibn al-Bawwab, Abu Bakr Ahmad's script is more attenuated, with long, almost triangular stems set on a floral ground. It recalls the style of *thuluth* used on twelfth-century buildings, such as the minaret erected in Dawlatabad, Afghanistan, in 502/1108–9, for the long stems and flowing curves made this script particularly suitable for architectural inscriptions (Sheila S. Blair, *Islamic Inscriptions* [Edinburgh, 1998], 88–93 and fig. 6.27).
- One rare example of *thuluth* as a text script is a now-dispersed thirty-volume manuscript of the Koran transcribed for the library (*khizana*) of the Zangid prince Qutb al-Din Muhammad ibn Zangi, ruler of Sinjar in the Jazira from 1198 to 1217. David James, *The Master Scribes: Qur'ans of the 10th to the 14th Centuries AD*, ed. Julian Raby, The Nasser D. Khalili Collection of Islamic Art (London, 1992), no. 7; *L'Orient de Saladin: l'art des Ayyoubides* (Paris, 2001), no. 216; Guesdon and Vernay-Nouri, *L'Art du livre arabe*, no. 42. Though of modest size, the manuscript is lavishly transcribed in gold outlined in black, with five lines of *thuluth* per page and incidentals in broken cursive. The extensive use of gold makes this an expensive manuscript and places it within the flourishing school of book painting that developed at the Artuqid court in the Jazira in the late twelfth and early thirteenth centuries. Several copies of al-Jaziri's *Automata* transcribed in *naskh*, for example, were produced at Diyarbekr in 602/1206, and Rachel Ward, 'Evidence for a School of Painting at the Artuqid Court,' in *The Art of Syria and the Jazira, 1100–1250*, ed. Julian Raby, Oxford Studies in Islamic Art 1 (Oxford, 1985), 69–84, has suggested that other illustrated manuscripts might have been produced there as well. Despite its obvious expense, the script of the Koran manuscript is rather carelessly executed, so that the gold strokes do not completely fill the black outlines. The approach is more painterly than calligraphic.
28. Cairo, DK, no. 144; Lings and Safadi, *The Qur'an*, no. 60; Y. H. Safadi, *Islamic Calligraphy* (Boulder, CO, 1978), 68; Tabbaa, 'Transformation 1: Qur'anic Calligraphy,' Table 3.
29. Born to a distinguished family in Isfahan, 'Imad al-Din rose to favor in Baghdad under the 'Abbasid vizier Ibn Hubayra. Around 1145, Ibn Hubayra had 'Imad al-Din appointed governor (*na'ib*) at Wasit. After the vizier's death in 559/1164, 'Imad al-Din fell from favor and spent two years in poverty before regaining a position with Nur al-Din ibn Zangi. 'Imad al-Din then moved on to the court of the Ayyubid prince Saladin, where he composed a history in rhyming prose (*saj*) recounting the battles waged and won by Saladin against local rulers and invading crusaders. Fine copies of 'Imad al-Din's history were already produced during his lifetime. For a short biography, see *EI*/2, 'Imad al-Din.'
30. Vlad Atanasiu, the scholar who has probably looked the most closely at Mamluk manuscripts, called the script a 'rayhanized *muhaqqaq*' in a personal communication. Tabbaa, 'Transformation 1: Qur'anic Calligraphy,' Table 3, used *rayhan*.
31. Philadelphia, University of Pennsylvania, University Museum, NEP-27.

- This manuscript was the subject of one of the earliest publications by Richard Ettinghausen, 'A Signed and Dated Seljuq Qur'an,' *Bulletin of the American Institute for Persian Art and Archaeology* 4, no. 2 (December 1935): 92–102. See also *The Arts of Islam*, no. 508; Tabbaa, 'Transformation 1: Qur'anic Calligraphy,' figs. 5–6.
32. Curiously, the verse count and benediction suggest that Mahmud ibn al-Husayn made his copy, like the one transcribed by Ibn al-Bawwab one hundred and fifty years earlier, for a Shi'ite audience. An illuminated page at the beginning of the Philadelphia Koran (fol. 1a; illustrated in Pope and Ackerman, *Survey*, pl. 927B; Tabbaa, 'Transformation 1: Qur'anic Calligraphy,' fig. 35) gives the verse count of the Koran according to different reckonings – 6,217 according to the school of Medina; 6,214 according to the school of Basra; and 6,666 according to the school of Kufa. The border band around the opening *sura* (fol. 1b) states that this copy follows the Kufan school, the same one mentioned in the frontispiece to Ibn al-Bawwab's copy. Similarly, the colophons in both manuscripts ask for blessings on the Prophet's family.
 33. A note in a rough hand around the edge of the opening folio says that it was given in pious endowment by Amir Ahmad Jawish during the period when Shaykh Muhammad al-Hifni served as Shaykh al-Islam in the Azhar Mosque in Cairo. The shaykh served in this position during the decade before his death in 1767, so the endowment can be dated between 1757 and 1767. The donor Ahmad Jawish can be identified from contemporary texts as a pious military man of Albanian origin who died in 1786. According to the Egyptian historian al-Jabarti, Amir Ahmad Jawish liked to frequent the bookshops of Cairo, where he purchased books to endow to the Mosque of Shaykhu for the benefit of the students. Presumably this was one of the books he found for sale. How it then moved from Cairo to Philadelphia is not known.
 34. Muhammad b. Hassan al-Tayyibi, *The Kinds of Arabic Calligraphy According to the Method of Ibn al-Bawwab (in Arabic)*, ed. Salahuddin Munajjid (Beirut, 1962), pl. 40; in al-Tayyibi's example of *manthur*, the words are even separated by dots. See further Chapter 8.
 35. The title is given in the older form: literally, the second *sura* in which the cow is mentioned. The lower rubric contains Koran 56:79–80, saying that it (i.e. the Koranic codex) is a well-guarded book that only the clean shall touch.
 36. D. S. Rice, *The Unique Ibn al-Bawwab Manuscript in the Chester Beatty Library* (Dublin, 1955), pl. 6.
 37. Four sections (*ajza'*) have survived (nos. 9, 13, and 53; Damascus, Musée de l'épigraphie arabe 2627; no. 27, Keir Collection ms. VII.3–4), at least two in their original goatskin bindings. See B. W. Robinson, *Islamic Painting and the Arts of the Book*, Catalogue of the Keir Collection (London, 1976), 287–8; Lings and Safadi, *The Qur'an*, nos. 55 and 157; *L'Orient de Saladin*, nos. 217–19.
 38. Cairo, DK 507. Both of these manuscripts were done on paper, but it was not the only medium used under the Zangids of Syria, for a damaged fragment of a Koran manuscript (Istanbul, TIEM, ms. 76) is copied on parchment.
 39. The format with an even number of lines per page is repeated in a Koran manuscript made in Cairo for the Mamluk amir Baybars in the opening decade of the fourteenth century (Figure 8.13). This Zangid manuscript thus shows that some of the roots of Mamluk calligraphy might be traced back to local traditions in Syria and the Jazira.

40. See, for example, the heading to Suras 113 and 114 illustrated in Rice, *Ibn al-Bawwab*, pl. 7.
41. One is a copy of 'Imad al-din Isfahani's *Kitab al-fath al-qussi fi'l-fath al-qudsi*, transcribed by Muhammad ibn Muhammad ibn Ahmad ibn al-Bazdi ibn 'Ikrim al-Jaziri *al-katib* (the secretary) at Amid (modern Diyarbakr) and finished in mid-Sha'ban 595/mid-June 1199 (St Petersburg, Institute of Oriental Studies C-345; *L'Orient de Saladin*, no. 61). The same script was used for fine illustrated manuscripts, including copies of al-Hariri's witty satire, the *Maqamat*, such as a copy in Paris (BN, ms. arabe 6094) with several miniatures dated 619/1222 (Ettinghausen, *Arab Painting*, 79; Oleg Grabar, *The Illustrations of the Maqamat* [Chicago, 1984], no. 2; *L'Orient de Saladin*, 88). It is penned in a well-developed *naskh* with full vocalization and diacritical marks. The copyist was intent upon ensuring accuracy and readability, despite – or perhaps because of – the treatise's rather complicated literary style.
42. This is not say that the same style of *naskh* was used everywhere. Other round styles were used elsewhere as well. A manuscript of poetic fragments chosen by al-Tha'alibi transcribed at the city of Zabid in the Yemen in 621/1224 (BN, ms. arabe 3305), for example, shows a round hand with long tails in the style of Ibn al-Bawwab, but maintains the older tradition of placing dots or letters below *dal*, *ra'* and *ta'* to distinguish them from their homographs, *dhal*, *za'*, and *za'*. See Guesdon and Vernay-Nouri, *L'Art du livre arabe*, no. 40.
43. For a short biography, see *EI*/2, 'Rāwandī.'
44. Paris, BN, supp. pers. 1314; Francis Richard, *Splendeurs persanes: manuscrits du XIIe au XVIIe siècle* (Paris, 1997), no. 8. The manuscript was first described by Edward G. Browne, 'Account of a Rare, If not Unique, Manuscript History of the Seljūqs in the Schefer Collection Lately Acquired by the Bibliothèque Nationale in Paris,' *Journal of the Royal Asiatic Society* (1902): 567–610, 849–87. The text has been published as Najm al-Dīn Muḥammad ibn 'Alī Rāwandī, *Rāḥat al-ṣudūr wa āyat al-surūr*, ed. Muhammad Iqbal (Cambridge, 1921).
45. Ravandi does not mention *rayhan* or *tawqi'*, perhaps because he considered them smaller or larger versions of other scripts (*muhaqqaq* and *riqa'*, respectively).
46. These drawings are also reproduced in Gülru Necipoğlu, *The Topkapi Scroll: Geometry and Ornament in Islamic Architecture*, The Getty Center in the History of Art and Humanities (Santa Monica, CA, 1995), figs. 92a and 92b.
47. See also Pope and Ackerman, *Survey*, 1727.
48. Part of the manuscript remained with 'Ala' al-Din Arslan, ruler of Maragha (c. 1188–1208); part with Begtimur, a Sökmenid slave commander who ruled eastern Anatolia from 1185 to 1193; and part with the painters. None of it survives today.
49. The endowment notice inscribed in *thuluth* at the top and bottom of this page (Figure 1.6) also shows how long the lapse can be between the time a luxury Koran manuscript was transcribed and the time it was endowed, in this case seventy years.
50. During reconstruction after the devastating fire of 1893, the documents, like the fragments from early manuscripts of the Koran, were sent to Istanbul, where they are now kept in TIEM. See Dominique Sourdel and Janine Sourdel-Thomine, 'Une collection médiévale de certificats de pèlerinage à la Mekke conservés à Istanbul. Les actes de la période seljoukide et bouride (jusqu'à 549/1154),' in *Études médiévales et patri-monie turc*, ed. Janine Sourdel-Thomine (Paris, 1983), 167–223; Şule

- Aksoy and Rachel Milstein, 'A Collection of Thirteenth-Century Illustrated Hajj Certificates,' in *M. Uğur Derman 65 Yaş Armağanı*, ed. Irvin Cemil Schick (Istanbul, 2000), 101–34; Janine Sourdel-Thomine, 'Un modèle exceptionnel parmi les certificats de pèlerinage ayyoubides,' *Manuscripta Orientalia* 9, no. 3 (September 2003): 63–8.
51. Istanbul, TIEM, no. 4752; Aksoy and Milstein, 'Hajj Certificates,' pl. 2.
 52. The pictures show the major stations of the Hajj ending with the Prophet's mosque in Medina and the Haram al-Sharif in Jerusalem. The first surviving example with illustrations is dated 589/1193. The introduction of an illustrative cycle required a longer surface, and later rolls are larger and made of a thicker, darker paper that often splits into two layers. The individual sheets measure some 70 by 50 cm, the so-called 'half-*baghdadi*' size that will become standard in later centuries (see Chapter 7 and Figure 7.3). The largest rolls have three sheets pasted together vertically to make up a document over two meters in length. The calligraphy, particularly the basmala, also became larger and more elaborate, written in various scripts, including broken cursive, and sometimes highlighted in red or gold. At first the pictures were hand-painted, but to speed up production and meet the burgeoning demand, block printing was soon introduced. The earliest example with block printing is dated 607/1210–11, and by the second quarter of the thirteenth century, block printing had replaced hand painting. All elements of the designs were printed, ranging from the frames and the images to the calligraphy, including the basmala and other Koranic and pious texts.
 53. CBL, 1438; Arberry, *Koran Illuminated*, no. 43; James, *Qur'ans and Bindings*, no. 20.
 54. Such epithets became common under the Mughals. See Chapter 12.
 55. This technique of highlighting God's name in gold will continue in other manuscripts made in the area, such as a tiny Koran manuscript made at Konya in 677/1278 (CBL 1466; see Chapter 9, note 1).
 56. St Petersburg, Russian Academy of Sciences, C-189. Yuri A. Petrosyan, et al., *Pages of Perfection: Islamic Paintings and Calligraphy from the Russian Academy of Sciences, St Petersburg* (Lugano, 1995), no. 17.
 57. Ramazān-'alī Shākiri, *Ganj-i hizār sāla-yi kitābkhāna-yi markazī-yi āstān-i quds-i rizāvī qabl wa ba'd az inqalāb* (Mashhad, 1367/1989), p. 65.
 58. 'Abd al-Wahhab, 'Al-'ināya bi'l-kutub wa jama'uhā fī ifriqiyya al-tūnisiyya (min qarn al-thālith ilā al-khāmis lil-hijra),' *Revue de l'Institut des Manuscrits Arabes* 1, no. 1 (1955): 85, mentioned that he knew of some twenty scribes who used the epithet *al-warraq* on manuscripts dating from the tenth to the twelfth century.
 59. See above, note 41.
 60. See the article 'Khatt' in *EI/2*.
 61. O. Houdas, 'Essai sur l'écriture maghrébine,' in *Nouveaux Mélanges Orientaux* (Paris, 1886), 85–112.
 62. Jonathan M. Bloom, et al., *The Minbar from the Kutubiyya Mosque* (New York, 1998).
 63. After the Almohads took the city in 1147, they transferred the minbar to the Kutubiyya (Booksellers) mosque, where it remained until recently (it is now installed in a museum in the Badi'a Palace). Its quality was already recognized in medieval times: the fourteenth-century historian Ibn Marzuk praised its exquisite workmanship. Jonathan M. Bloom, 'Ibn Marzuk: Sultan Abu'l-Hasan 'Ali's Architectural Patronage,' in *Windows on the House of Islam: Muslim Sources on Spirituality and Religious Life*, ed. John Renard (Berkeley, 1998), 250–61.

64. Jerrilynn D. Dodds (ed.), *Al-Andalus: The Art of Islamic Spain* (New York, 1992), no. 77.
65. Calligraphers in the Maghrib slice the reed into flat slats whose tips are trimmed with a blunt or rounded end that gives a rounded outline to the letters. See N. Van den Boogert, 'Some Notes on the Maghribi Script,' *Manuscripts of the Middle East* 4 (1989): 30.
66. This system of pointing is found in the sole manuscript that escaped the destruction of the enormous libraries maintained by the Umayyad rulers of Córdoba: a copy of Abu Mus'ab ibn Abi Bakr al-Zuhri's treatise on religious law, *al-Mukhtasar*, transcribed by Husayn ibn Yusuf for the neo-Umayyad caliph al-Hakam in Sha'ban 359/June–July 970 (Fez, Qarawiyyin Mosque Library); E. Lévi-Provençal, 'Un manuscrit de la bibliothèque du calife al-Hakam II,' *Hespéris* 18 (1934): 198–200; David Wasserstein, 'The Library of al-Hakam II al-Mustansir and the Culture of Islamic Spain,' *Manuscripts of the Middle East* 5 (1990–1): 99, n. 5; Dodds, *Al-Andalus*, 177, fig. 3. The same system of pointing is used in a copy of Abu Khatim al-Sijistani's philological treatise *Kitab al-nakhl* transcribed by Muhammad ibn Hakam ibn Sa'id, finished on 2 Jumada II 394/26 March 1004, and ascribed to North Africa (Palermo, National Library, ms. III.D. 10; Giovanni Curatola, *Eredità dell'Islam* [[Venice], 1993], no. 80). It recurs in a small, bilingual (Greek–Arabic) copy of the Gospels transcribed in southern Italy in 1043 (Paris, BN, ms. grec suppl. 911; Paul Géhin, 'Un manuscrit bilingue grec-arabe, BnF, supplément grec 911 (année 1043),' in *Scribes et manuscrits du Moyen-Orient*, ed. François Déroche and Francis Richard (Paris, 1997), 161–75.
67. E[variste] Lévi-Provençal, *Inscriptions arabes d'Espagne* (Leiden, 1931); W. Wright, *A Grammar of the Arabic Language Translated from the German of Caspari and Edited with Numerous Additions and Corrections*, 3rd rev. edn, W. Robertson Smith and M. J. de Goeje (Cambridge, 1971), 10; Florence Day, 'The Inscription of the Boston "Baghdad" Silk: A Note on Method in Epigraphy,' *Ars Orientalis* 1 (1954): 191–4; Blair, *Islamic Inscriptions*, 174.
68. In the Maghrib, *a* is often sounded as *i* or *e*. *Bab*, for example, is pronounced *bib*. Conversely, *e* is written as long *a*, as in the city of Beja in southern Portugal, written *baja* in classical Arabic. See Adrian Brockett, 'Aspects of the Physical Transmission of the Qur'an in 19th-century Sudan: Script, Decoration, Binding and Paper,' *Manuscripts of the Middle East* 2 (1987): 45–67; James, *Master Scribes*, 87–8.
69. This system was used in both the Blue Koran (Figure 4.10) and the Koran manuscript transcribed in broken cursive at Palermo in 372/982–3 (Figure 5.4).
70. Ibn Khaldûn, *The Muqaddimah: An Introduction to History*, trans. Franz Rosenthal (New York, 1967[1958]), 2:378.
71. François Déroche, 'Tradition et innovation dans la pratique de l'écriture au Maghreb pendant les IVe/Xe siècles,' in *Afrique du Nord antique et médiévale: numismatique, langues, écritures et arts du livre, spécificité des art figurés (Actes du VIIe colloque internationale sur l'histoire et l'archéologie de l'Afrique du Nord)*, ed. S. Lancel (Paris, 1999), 239–41.
72. Vatican, ms. Arab 310. Déroche showed that the dates in earlier manuscripts, such as a copy of the Koran dated 238/853 (University of Istanbul, A6753) and one of Malik ibn Anas' celebrated treatise on jurisprudence, *Kitab al-muwatta'*, transcribed by Muhammad ibn Muhammad ibn 'Ali in 277/890 (Dublin, CBL 3001; Arthur J. Arberry, *The Chester Beatty Library: A Handlist of the Arabic Manuscripts* [Dublin, 1955–66], no. 1), were not authentic.

73. TIEM, ŞE 13216 and 13644; François Déroche, 'Deux fragments coraniques maghrébins anciens au Musée des Arts turc et islamique d'Istanbul,' *Revue des Études Islamiques* 59 (1991): 230-3. The folios were probably preserved because they bore dates.
74. Nabil F. Safwat, *The Harmony of Letters: Islamic Calligraphy from the Tareq Rajab Museum* (Kuwait, 1997), 36-7.
75. Uppsala University Library; Dodds, *Al-Andalus*, no. 74.
76. Partial lists of dated manuscripts given in James, *Master Scribes*, 89, and Déroche, 'Tradition et innovation,' 240-1.
77. Both manuscripts are in the National Library in Rabat; nos. 1810 and 12618, respectively; see Dodds, *Al-Andalus*, no. 77; *De l'Empire romain aux villes impériales: 6000 ans d'art au Maroc* (Paris, 1990), no. 497.
78. The sole exception is a paper copy dated 534/1139-40 that was sold at Christie's in 1990 (lot 46).
79. A copy of the Arabic translation of Dioscurides' *De Materia Medica* in the Bibliothèque Nationale (ms. arabe 2850) is on parchment, while the other two, in the Vatican, are on paper: the romance of Bayad and Riyad (ms. ar. 368; Dodds, *Al-Andalus*, no. 82) and a copy of al-Sufi's treatise on the fixed stars produced at Ceuta in 621/1224 (ms. Ross. 1033; Ettinghausen, *Arab Painting*, 130). As elsewhere in the Islamic lands, paper seems to have been adopted first for secular purposes and only later for Koran codices.
80. Istanbul University Library, A6754; Dodds, *Al-Andalus*, no. 75.
81. The gold and blue decoration is reminiscent of the mosaic decoration added in June 965 over the bays around the mihrab in the Great Mosque in Córdoba, and the interlaced strapwork patterns resemble the type used on the minbar and on contemporary bindings, as on a copy of the Koran dated 573/1178 (Rabat, National Library, ms. 12609; *De l'Empire romain*, no. 496; Dodds, *Al-Andalus*, no. 78). The colophon to the manuscript dated 538/1143 is written in a stately blue kufic outlined in gold and set within a braided border (Dodds, *Al-Andalus*, 305), a script similar to that used in the mosaic inscriptions in the mosque. In it the unnamed scribe invokes God's protection on the city of Córdoba. He might have been referring to the unsettled events of the times, for the manuscript was finished in the year that Hamdin ibn Muhammad al-Mansur, first ruler of Córdoba in the Almoravid-Almohad interregnum, acceded to the throne and four years before the last Almoravid ruler in Marrakesh was killed by the Almohads.
82. James, *Master Scribes*, 89-91. Nevertheless, the principal Almohad capital was Marrakesh and a second capital was established at Seville after the Almohads conquered the Iberian peninsula in 1145.
83. Ibn 'Abbar, nos. 927 and 1370; cited in James, *Master Scribes*, 89 and n. 2.
84. One manuscript signed by Ibn Ghattus himself has survived: Cairo, DK 196; Dodds, *Al-Andalus*, no. 76. According to Ibn 'Abbar, Ibn Ghattus' son Abu 'Abdallah Muhammad devoted himself to copying the Koran. The chronicler credits Abu 'Abdallah Muhammad with copying one thousand Koran manuscripts, of which two have survived: the first dated 564/1168 (Tunis, al-Ahmadiyya 13727), and the second dated 578/1182-3 (Istanbul University Library, A6754; Dodds, *Al-Andalus*, no. 79; Derman, *Art of Calligraphy*, no. 18).
85. This one is Khalili Collection, QUR318; James, *Master Scribes*, no. 20. Another similar one was done at Seville in 624/1226 (Munich, Bayerische Staatsbibliothek, cod. arab. 1; Dodds, *Al-Andalus*, no. 80. It measures 22 × 20 cm, slightly larger than the one illustrated here, which measures 17 × 16 cm and has twenty-five lines to the page.

86. Descended from Sanhaja Berber chieftains, the Almoravids ruled parts of the Sahara, Morocco, Algeria, and Spain from 1056 to 1147. Adherents of a revivalist, reformist Islam, they invigorated the Islamic tradition in sub-Saharan Africa, as shown by a group of marble tombstones from Gao on the left bank of the Niger River (now in Mali). The earliest is dated 1 Muharram 494/6 November 1100, and the material, lettering, and decoration are typical tombstones from Almería in Spain, suggesting that they were ordered from one end of the Almoravid kingdom to mark the death of the local king of Songhay at the other (Jean Sauvaget, 'Les épitaphes royales de Gao,' *Al-Andalus* 14 [1949]: 123-41; A. D. H. Bivar, 'The Arabic Calligraphy of West Africa,' *African Language Review* 7 [1968]: 3-15). Similarly, the same style of small Koran manuscripts circulated through out the Maghrib during this period.
87. According to the colophon, the one by Ibn Ghattus, for example, was commissioned by the minister Abu Muhammad ibn 'Abdallah ibn 'Abd al-Rahman ibn 'Abdallah al-Mazhaji, known as al-Lawsh. The one in the Khalili Collection illustrated here was made in 596/1199-1200 for Ahmad ibn Muhammad ibn 'Abd al-Rahman ibn Bitash (or Biyatush) al-Makhzumi. His name is probably an Arabicized form of the Latin Beatus.
88. This is the case, for example, on the opening page, illustrated in James, *Master Scribes*, 94. The text there is laid out in the standard way used in the Maghrib, with the first *sura* and the beginning of the second on folio 1b.
89. No. 430 copied at Málaga in 620/1223 and a very similar copy, no. 429, dated 632/1234, for which see Sabiha Khemir, 'The Arts of the Book,' in *Al-Andalus: The Art of Islamic Spain*, ed. Jerrilynn D. Dodds (New York, 1992), 119-20.
90. London, BL, Or. 13192; Dodds, *Al-Andalus*, 120 and fig. 5.
91. One dated example is a dispersed sixty-volume Koran with six lines to the 19 × 19 cm page (BL, Or. 12523; Dodds, *Al-Andalus*, 119, fig. 4).
92. In addition to the copy transcribed by the Almohad sultan himself, others were endowed by members of court. For example, a four-volume Koran with seven lines to the page (Istanbul, TKS R21-24) was endowed to a mosque in Marrakesh in 635/1238 by Ibrahim ibn al-Sayyid Abi Ibrahim ibn Amir al-Mu'minin, presumably a descendant of one of the Almohad caliphs. Another, perhaps slightly later thirty-volume Koran manuscript in the library of the Mosque of Qayrawan (no. 1966; *De l'Empire romain*, no. 502) bears an endowment note by the mother of the Marinid sultan Abu Ya'qub Yusuf (d. 706/1306-7).
93. Lings and Safadi, *The Qur'an*, no. 158; Dodds, *Al-Andalus*, 123, fig. 10. Another intact example with geometric interlacing covers the copy of the Koran dated 573/1178 (Rabat, Bib. royale 12609; *De l'Empire romain*, no. 496; Dodds, *Al-Andalus*, no. 78).

Part IV: The Emergence of Regional Styles in the Later Middle Period

Calligraphy in Iran and its Environs under the Mongols and Turkomans

THE MONGOL INVASIONS of the early thirteenth century disrupted the economic and political infrastructure of the eastern Islamic lands, and 656/1258, the year that the Mongols overthrew the caliphate, is often taken as a watershed. Yet, despite the devastation wrought by these pagan warriors, many social and cultural norms continued, and after Abaqa's conversion in 695/1295, Islam again became the official religion throughout west Asia. This was the age of Mongol prestige and Persianate culture,¹ and the Persian-speaking lands, under the control of various Mongol and Turkoman dynasties including the Ilkhanids (1256–1353), the Jalayirids (1340–1432), the Timurids (1370–1507), the Qaraqoyunlu (1351–1469), and the Aqqoyunlu (1396–1508), set the standard in calligraphy as in the other arts.

The round scripts known as the Six Pens, typically arranged in pairs of majuscule and minuscule scripts, remained the main styles for prose texts, and the Koran manuscripts produced at this time are some of the finest known. These scripts were also used for other fancy manuscripts of Persian poetry and for calligraphic specimens, known in Arabic as *qit'a*, the noun meaning piece or fragment derived from the verb *qata'a* (to cut or cut off).² These specimens could be used as models for architectural revetment, and one of the major innovations of the period is the extension of calligraphy to other media, particularly stucco and tile. These specimens also served as exemplars for copying, and masters like Yaqut and his followers produced many signed and dated specimens. With the increasing prestige of individual hands, these specimens were collected and mounted in albums that began to be assembled by the middle of this period. The increasing predominance of Persian, including the new genre of lyric poetry, also led to the development of two new hanging scripts, *ta'liq* and *nasta'liq*.

Sixteenth-century Safavid chroniclers, the first to write an art history of this period, viewed the subject biographically.³ They borrowed the vocabulary of Sufi brotherhoods, describing the history of calligraphy as a path (*tariqa*) or chain (*silsila*) that passed from master (*ustad*, *pir*, or *shaykh*) to pupil (*shagird* or *murshid*). These chains were typically arranged along east–west lines,⁴ but such geographic divisions may tell us more about Safavid roots in fifteenth-century

rivalries between Timurids and Turkomans than about the practice of calligraphy in earlier centuries. Such a dialectic view of art history, something of a trope pitting Apollo against Dionysus, should not be accepted uncritically.⁵ In addition to a critical examination of written sources, we need to scrutinize extant examples to chart the history of calligraphy in this period.⁶

The Six Pens under the Ilkhanids and Jalayirids

Baghdad, which had been the seat of the caliphate under the 'Abbasids, remained the major center of fine calligraphy, especially for luxury manuscripts, regularly penned using four of the Six Pens (*rayhan*, *muhaqqaq*, *naskh*, and *thuluth*) and often elaborated with illumination and illustration.⁷ Signed and dated codices show that many calligraphers worked there in the late thirteenth and early fourteenth centuries,⁸ but the important calligrapher of the age – and later regarded as one of the most famous calligraphers of all times – was Abu'l-Majd Jamal al-Din Yaqut. Few details about Yaqut's life are certain, and much is the stuff of legend.⁹ He was born sometime in the first or second decade of the thirteenth century, probably at Amasya in Anatolia. He was likely a convert to Islam, since he regularly signed his work simply as Yaqut ibn 'Abdallah (son of God's servant) and such a genealogy would fit the etymology of his name Yaqut (ruby), a common name for a slave. As a young boy, he was brought to Baghdad, where he served the last 'Abbasid caliph, al-Musta'sim billah (r. 1242–58), thereby earning the epithet al-Musta'simi.

Yaqut spent virtually all of his life in Baghdad. He studied calligraphy there with one of the masters of the day, Safi al-Din 'Abd al-Mu'min al-Urmawi (d. 1294). Like his predecessor Ibn Muqla, Yaqut became a secretary in the 'Abbasid chancery. After Hulegu took Baghdad in 1258, Yaqut remained in the city, where his career flourished under Mongol patronage.¹⁰ He was friendly with 'Ata-Malik al-Juvayni, Persian historian and governor of the city for the Mongols, and taught calligraphy to Juvayni's sons and brother Shams al-Din, the head of the chancery (*sahib diwan*). Like Ibn al-Bawwab, Yaqut was also a librarian, working in the Mustansiriyya Madrasa under the supervision of the historian Ibn al-Fuwati (d. 1318), who was appointed director in 1280–1. As with Yaqut's birth, various dates are given for his death; the most convincing are 697 or 698 (1297–9).¹¹ All sources agree that Yaqut, like his predecessor Ibn al-Bawwab, was buried in Baghdad near the tomb of the jurist Ahmad ibn Hanbal.

It is difficult to judge Yaqut's skills or discern his style from textual descriptions, for they are brief and couched in abstract metaphors. For example, in the album preface prepared in 951/1544, the Safavid librarian Dust Muhammad credited Yaqut with perfecting the round *naskh* script developed by Ibn Muqla. In Dust Muhammad's flowery words, Yaqut 'laid down the rules for this script and brought down the cryptic regulations of this science from heaven to earth. Without the least hint

of extravagance, it may be said that he caused his musk-scented pen to skim through the current of scripts in such a way that the pen's tongue and the two-tongued pen are incapable of describing it.¹² Yaqut's own words, as recorded in later sources, are not much more help.¹³

Identifying Yaqut's style from extant examples is equally problematic. His prestigious reputation means many manuscripts and individual specimens in various scripts bear his signature, authentic and otherwise. Almost every major museum or collection has a piece supposedly in his hand.¹⁴ No scholar has been able to examine all (or even many) of these examples and establish a methodology to distinguish authentic work from later fakes, forgeries, and pieces in other hands. D. S. Rice's monograph showed that all six manuscripts bearing Ibn al-Bawwab's 'signature' had been accepted as genuine by the second half of the fourteenth century, and Yaqut's work was likewise esteemed and copied by this time.¹⁵ Provenance is therefore not a reliable criterion for determining authenticity, and it remains for scholars to apply other types of analysis to distinguish genuine works of Yaqut from others supposedly in his hand.¹⁶

The problem is particularly complicated in the case of Yaqut, for he calligraphed a range of material (both manuscripts and individual specimens) in two languages (Arabic and Persian) using a variety of scripts.¹⁷ Qadi Ahmad's long passage about Yaqut reaffirms the calligrapher's productivity and breadth,¹⁸ and matching it with extant examples can suggest ways of interpreting such textual information. According to the Safavid chronicler, Yaqut copied two sections (*juz'*) of the Koran daily, such that each month he produced two complete codices. To judge from this speed, these must have been small, single-volume manuscripts.¹⁹ Yaqut supposedly numbered each manuscript at the end, and Qadi Ahmad reported that he had seen number 364, a figure chosen presumably for hyperbole and perhaps to show that Yaqut had outdone his predecessor Ibn al-Bawwab, who is said to have calligraphed sixty-four copies.²⁰ Qadi Ahmad added that Yaqut passed out samples of his writing daily to seventy people, thereby underscoring the calligrapher's substantial output. Finally, Qadi Ahmad summed up Yaqut's talents in a short verse containing puns on the double meaning of the name of five round scripts (*muhaqqaq*, *rayhan*, *riqa'*, *tawqi'*, and *ghubar*), thereby drawing attention to Yaqut's mastery of different scripts.

Surviving manuscripts with colophons naming Yaqut bear out Qadi Ahmad's description. Many are copies of the Koran. At least one is a thirty-part codex in *muhaqqaq*,²¹ but most are single-volume codices copied in the small scripts of *naskh* or *rayhan*.²² Such manuscripts must have suited the taste of the Muslim elite in Baghdad, who presumably acquired them.²³ We can use a manuscript in Tehran (Figure 7.1) as an exemplar of the type of Koran manuscript calligraphed by Yaqut.²⁴ According to the colophon written at the bottom of page 60r in the same size and script as the text, it was transcribed (*kataba*) by Yaqut al-Musta'simi at Baghdad in Jumada I 685/July 1286.

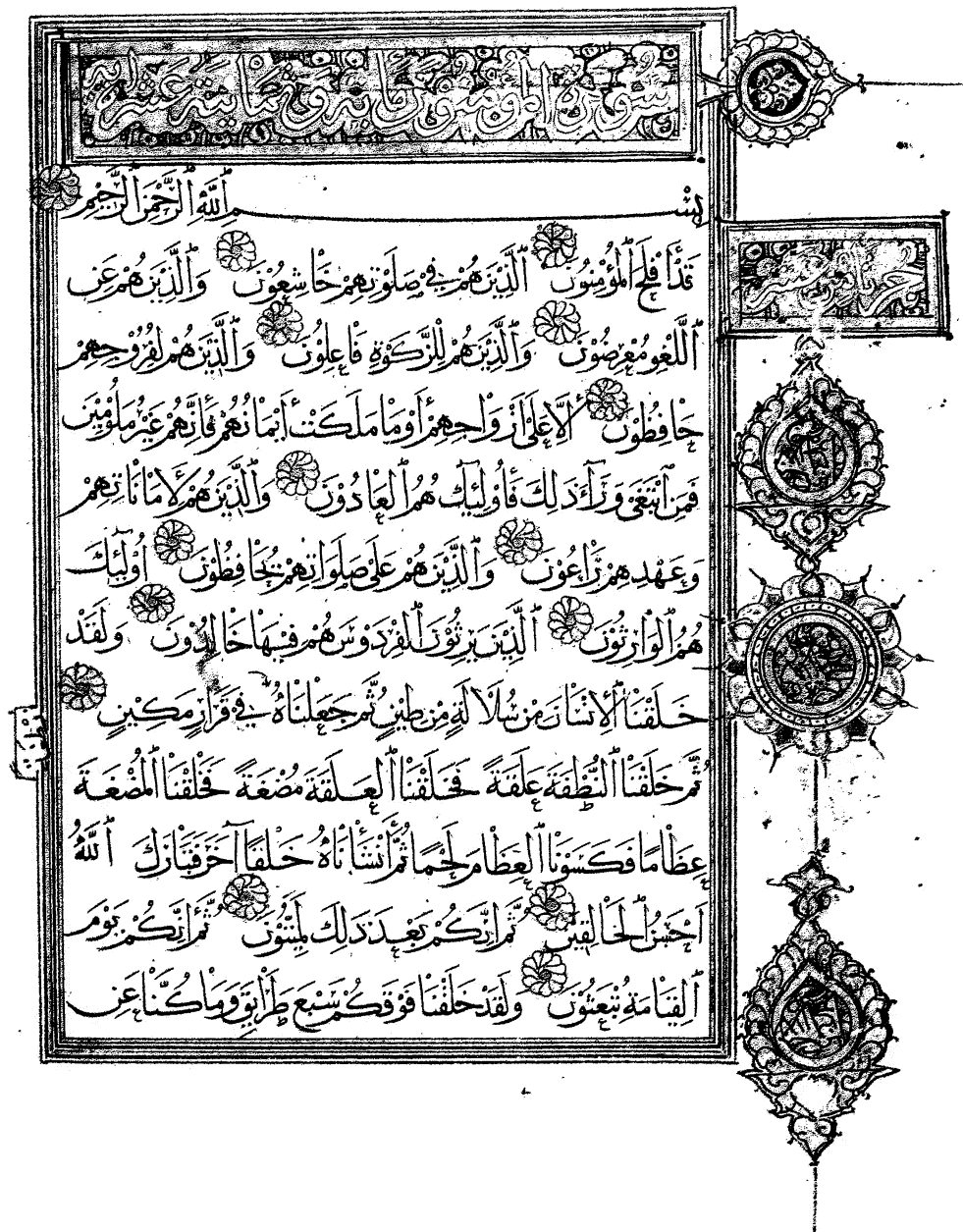


Figure 7.1 Page containing Sura 23:1-17 from a single-volume Koran manuscript with thirteen lines per page completed by Yaqut at Baghdad in Jumada I 685/July 1286.

Yaqut was one of the finest calligraphers of all times. He penned this large Koran manuscript in *muhaqqaq*'s smaller counterpart, *rayhan*. Yaqut's hand is considered the classic example of *rayhan*, notable for its smooth line, even spacing, and balance. The lightness is enhanced by his serifs, which are notably spiky, unlike the thick curls used in other traditions. He juxtaposed the text script with headings in a round, fat *thuluth* notable for its unauthorized connections between letters.

The Tehran Koran is a large manuscript, with pages measuring 35 × 25 cm; other Koran manuscripts bearing Yaqut's name are the same or half that size.²⁵ While the size of the paper might be standard, what was written on it was not. The Tehran manuscript has thirteen lines of script per page. Other manuscripts written in the small scripts have anywhere from thirteen to nineteen lines per page.²⁶ Rulings with a *mastara* are not standard either: the pages in this manuscript are not ruled, but the ones in the Paris codex are. The quires vary as well: the Tehran manuscript has quaternions, the Paris manuscript quinions. The codicology of these Koran manuscripts, assuming that they are all actually the work of Yaqut, therefore varies.

So does the calligraphy. As Qadi Ahmad indicated, Yaqut was a master calligrapher, able to use different scripts for text and display. In the Tehran manuscript, for example, he penned the text in black *rayhan*, juxtaposed to *thuluth*, broken cursive, *riqa'*, and *naskh* as display scripts. *Rayhan*, the text script, bears many resemblances to *naskh*: both are small round scripts, in which *alif* is generally reckoned to be five dots high. In the full form of both scripts, unpointed (*muhmala*) letters are marked in two ways: some letters such as 'ayn, sad, ta', and ha' have small versions written below the letter in the text; *ra'* and *sin* are marked by a small V or hook written above the letters (Figure 7.1a).²⁷ Vocalizations and *tanwin* are large.

Despite their general similarities, small but significant differences distinguish the two small scripts. *Rayhan* is more severe and rectilinear than the fluid and curvilinear *naskh*. One difference is the serif, used in *alif* and *lam* in *rayhan* (Figure 7.1a), but not in *naskh*. Independent *alif* stands upright in *rayhan*, but is pitched slightly to the left in *naskh*. In *rayhan*, the tails of *mim* and other descending letters are flatter; they descend deeper in *naskh*. Another feature distinguishing the two scripts is the tail of *ra'*: in *rayhan*, it is usually straight, whereas in *naskh* it usually ends in a small upwards hook. The letter *dal* is proportionally much larger in *rayhan*. In *rayhan*, the bowls of final *nun* and *sin* are flat on the bottom, whereas in *naskh* they are flattened on the top.

Rayhan is generally described as of medium roundness, between that of *thuluth* and *muhaqqaq*, and medium weight,²⁸ and Yaqut's *rayhan* is particularly delicate. The word *rayhan* also designates sweet basil, a plant from the mint family noted for its delicate stems, and later authors frequent make puns between the delicacy of this script and that of the plant. The Timurid poet Jami (d. 1492), for example, penned a famous line about an album probably made for his patron Sultan Husayn Mirza:

Before this copy, which is the pleasure ground of intellect and soul,
the eye of reason is bewildered.

It is a cheerful garden filled with roses and odoriferous herbs;
The pages are roses and the lines sweet basil (*rayhan*).²⁹

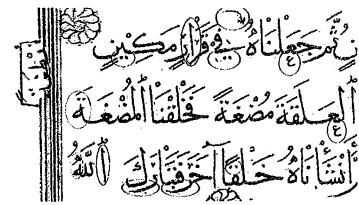


Figure 7.1a

Yaqut's lightness of touch was a feature emphasized by later chroniclers. According to Qadi Ahmad, Yaqut maintained the style of writing used by his predecessor Ibn al-Bawwab, but modified the way that the pen was cut. Ibn al-Bawwab had trimmed the pen at a right angle, but Yaqut's point was long, thick, and trimmed obliquely (*muharraf*) so that it rang like a sword made by Mashriqi, a famous swordsmith. Therefore, in Qadi Ahmad's judgment, Yaqut's style was finer and more graceful than that of his predecessor.³⁰ The lightness is emphasized by the serifs that Yaqut used: they are long, thin spikes, unlike the thick curls favored in other traditions and likened by poets to the black tresses of the beloved.³¹



Figure 7.1b

The delicacy of Yaqut's text *rayhan* is heightened by its juxtaposition against heavier and more rounded display scripts. On this page from the Tehran manuscript, for example, the title is written in a fat *thuluth* verging on *tawqi'* (Figure 7.1b). Considered the most rounded and plumpest of the six scripts, *thuluth* was sometimes called soft (*layyin*) because of its svelte curves. Letters in *thuluth* descend quite far below the baseline. By contrast, in the other large script *muhaqqaq*, as in its minuscule counterpart *rayhan*, there is a narrower zone below the baseline so that the bowls of such descending letters as *lam* and *nun* are shallow and elliptically shaped. Because the letters descend so far in *thuluth*, the calligrapher usually adds an upturned hook at the end of *ra'*, *waw*, final *ya'*, etc. Similarly, in *thuluth*, a final *ha'/ta'marbuta* that is connected to the preceding letter is open at the bottom, almost like a squiggle, as in the last word of the title, *aya*. In contrast, final *ha'/ta'marbuta* in *muhaqqaq* and *rayhan* is a loop that is closed at the bottom, as in the *al-mudgha* and *allah*, the last words in the third and fourth lines from the bottom.

The roundness of letters in *thuluth* makes it easy to join unconnected letters, a feature typical of the scribal pair *tawqi'/riqa'*. In *muhaqqaq* and *rayhan*, by contrast, they are kept rigidly separate. In the *sura* heading, for example, *waw* (and) is connected to the following word, *thamaniyya*. Similarly, the letter *ra'* often runs over or touches the following *ta'marbuta*, as in the word *sura*.³² *Alif* too is commonly joined to the following letter, particularly *lam* in well-known combinations such as the definite prefix *al-* and the word *qala* (he said). This joining of unconnected letters in *thuluth* may be the reason that many sources from Ibn al-Nadim onwards name this script as the origin of *riqa'*, the minuscule partner of *tawqi'*. In *thuluth*, it is also permitted to fill in the eye or body of the letter, a procedure called *tams* (literally effacement).³³

The layout of Yaqut's page in *rayhan* continues several characteristics of the pages penned by Ibn al-Bawwab (Figure 5.8). For example, both calligraphers extended the connector between *sin* and *mim* in *bism* like a long suspension bridge so that the basmala fills out the first line of each *sura* (Figure 7.1). Both calligraphers also used the margin to write the last letter or two of the final word in a given line. Such penning of letters in the margin occurs regularly in this

manuscript and others.³⁴ This procedure allows calligraphers to avoid squeezing letters at the end of the line. It also draws the eye into the inner margin. With the increasingly use of ruled margins, however, it had a disruptive visual effect, for the gold and blue rulings often had to be stepped around the isolated letters. Hence calligraphers in later times avoided the problem by piling up the last letters above the word to make a justified left margin.

Despite the care with which Yaqut wrote, he, like his predecessor Ibn al-Bawwab, made the occasional mistake.³⁵ On this page from the Tehran manuscript, for example, Yaqut omitted the word *nutfa* (sperm) from verse twelve (Figure 7.1a). When he discovered the mistake in reading over what he had written, he added the missing word vertically in the right margin and inserted a small arrow in the middle of line nine to show the reader where to insert it. When the marginal rulings were added, they skirt the omitted word, for it was considered inappropriate to rule over God's word (though not to rule over the rosettes separating verses).

A limited repertory of decoration enhances the delicate script of Yaqut's text.³⁶ Instead of Ibn al-Bawwab's three blue dots, gold multi-petaled rosettes separate verses. In contrast to the careful calligraphy of the text, they are painted carelessly: the number of petals varies (some have ten petals, others eleven), and the gold paint often goes over the black outline.³⁷ Marginal palmettes painted in gold outlined with blue mark groups of five and ten verses. Those marking five verses are pointed or pear-shaped, like the numeral for five in Arabic, whereas those marking ten verses are circular, from the dot used to indicate zero. On the Tehran page (Figure 7.1), for example, the three lower markers in the right margin mark the fifth, tenth, and fifteenth verses of Surat al-Mu'minun (Chapter 23). These marginal rosettes and palmettes, which are found in other manuscripts signed by Yaqut, seem to have become a hallmark of his style, for they were added around calligraphic specimens in an album compiled for the Timurid prince Baysunghur, although they are not typical of the early fifteenth century when the album was assembled.³⁸

This restrained decoration was not always esteemed in later times, and the opening and closing pages of Koran manuscripts in Yaqut's hand were often redecorated and the textblock set in a new binding. The Tehran manuscript, for example, has elaborately decorated opening pages that were reworked in the sixteenth century, perhaps when the Safavid Shah Tahmasp (r. 1524–76) endowed the manuscript to the dynastic shrine at Ardabil.³⁹ The elaborate gold binding may have been added at this time as well. Other Koran manuscripts penned by Yaqut (and his followers) were refurbished by the Ottomans, particularly under Sultan Sulayman and his vizier Rustam Pasha, and provided with elaborate frontispieces, margins, and bindings.⁴⁰ As Yaqut's reputation waxed, manuscripts in his hand became collectors' items, treasured by princes and gussied up to suit changing tastes (and pocketbooks).⁴¹

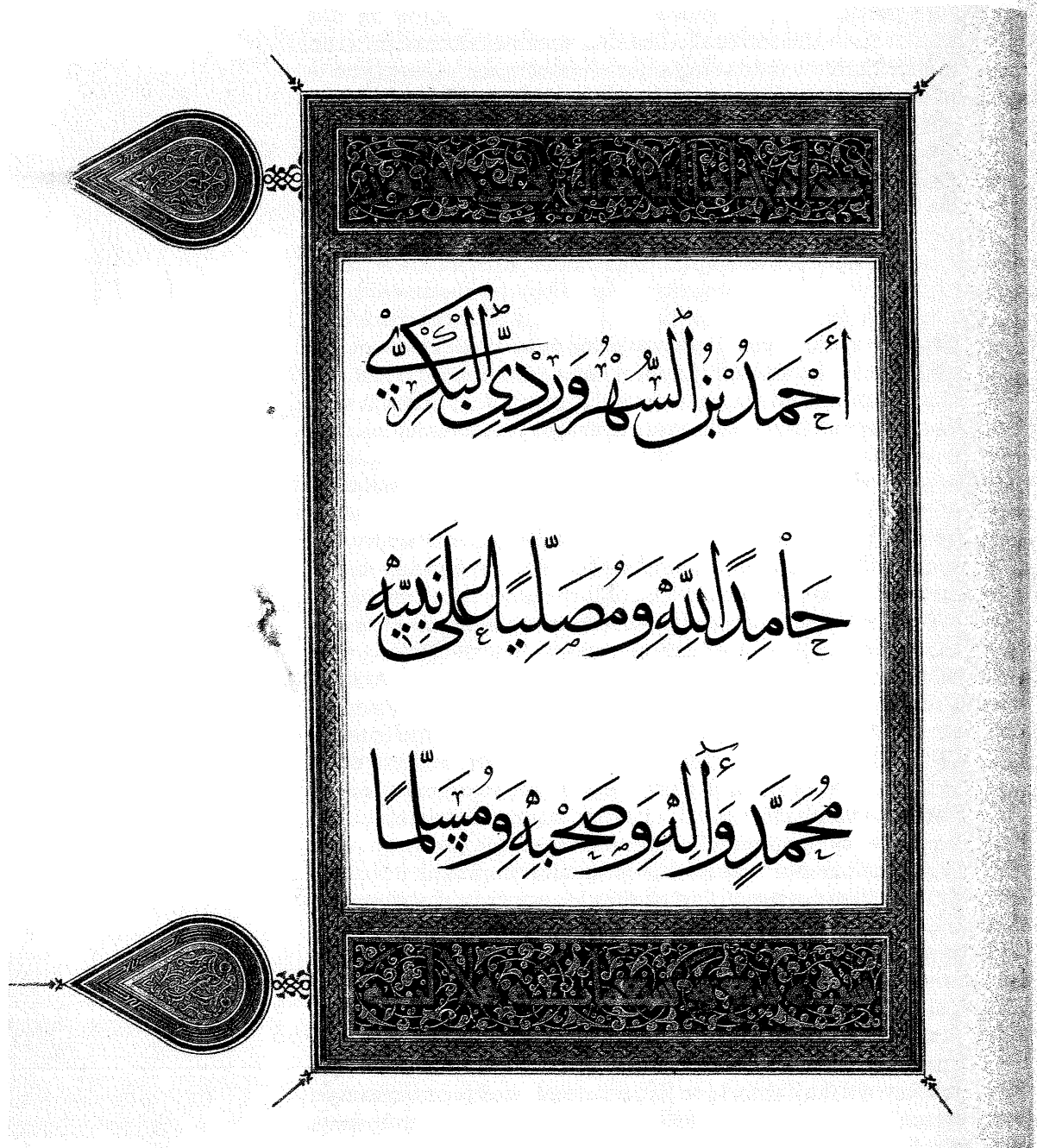


Figure 7.2 Colophon detached from the twenty-eighth part of a thirty-volume Koran manuscript with five lines per page copied by Ahmad al-Suhrawardi and illuminated by Muhammad ibn Aybak ibn 'Abdallah between 701 and 708/1301-8.

The three lines of majestic *muhaqqaq* in the center name the calligrapher, the most famous follower of Yaqut. The text in the panels at the top and bottom, written in gold broken cursive surrounded by gold flowers and set against a brilliant blue ground, mentions Baghdad and the year 707/1307-8.

The arts of writing and books flourished under the Ilkhanids, and the Six Pens as canonized by Yaqut were perpetuated by many followers. Calligraphers continued to copy single-volume Koran codices in the small scripts of *naskh* and *rayhan*, but the most impressive copies are thirty-volume codices in *rayhan*'s larger counterpart, *muhaqqaq*. We can use the largest and finest of these thirty-volume copies, a dispersed manuscript with colophons dating between Ramadan 702/April–May 1303 and 707/1307–8, as an exemplar.⁴²

The colophon from *juz* '28 (Figure 7.2) gives the name of the calligrapher as Ahmad al-Suhrawardi al-Bakri. He was Yaqut's most famous pupil.⁴³ Chroniclers record few details about Ahmad al-Suhrawardi's life, but we can put together more information from signed works. His epithets al-Suhrawardi and al-Bakri shows that he belonged to the Suhrawardiyya, the important Sufi order founded by his great-grandfather.⁴⁴ In contrast to Yaqut, who had been born a slave and brought to Baghdad, where he rose through the 'Abbasid and Mongol administrations, Ahmad al-Suhrawardi was an aristocrat who came from one of the most highly respected families in the city.

To judge from the colophons in other manuscripts, Ahmad al-Suhrawardi spent most of his life in Baghdad, where his family of prominent Sufis had lived for a century. According to Qadi Ahmad, Ahmad al-Suhrawardi designed most of the texts inscribed on buildings there.⁴⁵ Works on paper signed by Ahmad al-Suhrawardi range from 701/1301–2 (a single-volume Koran codex) or 702/1302–3 (a calligraphic specimen) to 732/1331–2, a manuscript of his great-grandfather's Sufi handbook, *'Awarif al-ma'arif* with very fine calligraphy but faulty vocalization.⁴⁶ Transcribed in several scripts including *thuluth*, *naskh*, *rayhan*, and *tawqi'*, these works comprise a range of materials from individual specimens to Shi'ite and Sufi treatises and Koran manuscripts, both single and multi-volume copies.⁴⁷

The text of this magnificent Koran manuscript is transcribed on very large sheets of very fine paper. The paper was rigorously rubbed to render the surface as smooth as possible so that it offered absolutely no hindrance to the pen. Such painstaking finishing requires enormous time and shows the care and expense involved in making this superb manuscript, which originally had some 825 very large bifolios (each 50 × 70 cm). As with the multi-volume Koran manuscript penned by his teacher Yaqut, Ahmad al-Suhrawardi transcribed the text for this multi-volume copy in five lines of black *muhaqqaq* script, with black for the vowels and orthographic signs. The monochrome black ink contrasts with the vivid polychrome paint used by the illuminator Muhammad ibn Aybak ibn 'Abdallah for the ornament, which is far more elaborate than that in the earlier manuscript by Yaqut. Ahmad al-Suhrawardi's script also surpasses that of his teacher. It is more carefully done, without Yaqut's occasional mistakes. This is one of the finest Koran manuscripts ever produced, and its calligraphy and illumination are in total harmony.

Ahmad al-Suhrawardi's *muhaqqaq* script is more curvilinear than

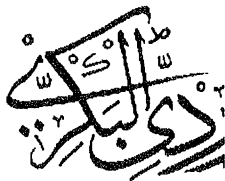


Figure 7.2a



Figure 7.2b

that of his teacher Yaqut, borrowing several traits characteristic of *thuluth*. *Alif*, for example, is pitched to the left at a 5° angle,⁴⁸ and final *nun* is sometimes elongated and flattened in comparison to the deeper bowl used by Yaqut. These curvilinear traits are exaggerated in Ahmad al-Suhrawardi's signature in the colophons, where some letters are joined, as in *thuluth*. Note, for example, the upturned ends of *ra'* in the upper line (Figure 7.2a) and the connection of the final *alif* of *musalliyan* to the initial *'ayn* of *'ala* in the middle line of the colophon from *juz'* 28 (Figure 7.2b). Strokes are smoothly written, without hesitation, as in the sweeping tail to final *ya'* in al-Bakri. Letters and words slope subtly at a 10° angle from upper right to lower left, without disrupting the horizontality of the baseline. The rhomboidal dots echo the slope. To enliven the page, Ahmad al-Suhrawardi varied his serifs, particularly in the paired verticals of *alif* and *lam*, as in the top line with al-Suhrawardi and the bottom line with *'alayhi*, using a more rounded serif for the first stroke and a spiked one for the second. Similarly, he varied the shape of *kaf*, from a single long sweeping stroke like an S-curve to a two-part stroke with a long sweeping cap, as here in al-Bakri (Figure 7.2a). The two-stroke *kaf* often has a small spiked serif at the top of the vertical stroke.⁴⁹ Although the letters are closely set to create a high density, they are perfectly balanced, both to each other and to the large size of the page.

Pages from the two Koran manuscripts produced by Yaqut (Figure 7.1) and Ahmad al-Suhrawardi (Figure 7.2) illustrate several important points about the calligraphy used for fine manuscripts penned in Baghdad at the turn of the fourteenth century. First, the paper came in standard sizes (Figure 7.3). The Koran manuscript by Ahmad al-Suhrawardi is very large, with pages measuring 50 by 35 cm and thus bifolios measuring 50×70 cm. Although it lacks a certificate of commissioning, its large size and lavish illumination bespeak court patronage. James suggested that it might have been begun for the Ilkhanid sultan Ghazan before his death in 703/1304.⁵⁰ In size and style, it is related to other codices made for his vizier Rashid al-Din, and it too may well have been finished under his auspices, either at Ghazan's pious foundation in Baghdad, which was overseen by the vizier after the sultan's death, or at the vizier's own pious foundation in that city.⁵¹

At least one other Koran manuscript made at this time – another thirty-volume Koran manuscript made for Sultan Uljaytu and probably also copied by Ahmad al-Suhrawardi – is twice this size.⁵² Its enormous bifolios, each measuring 70×100 cm, correspond to what the fifteenth-century Mamluk chronicler al-Qalqashandi called the full *baghdadi* size. Such paper represents the limit of what a single person can lift from the mold. It must have been a Herculean task to lift the wet sheets of paper, especially as over one thousand bifolios were needed for this colossal Koran manuscript. The sheets for other manuscripts were measured in relation to the full *baghdadi* size. In addition to the half-*baghdadi* size used for Ahmad al-Suhrawardi's

Standard Paper Sizes used in the Fourteenth and Early Fifteenth Centuries

Descriptor	Name given by al-Qalqashandi	Paper dimensions (cms)	Page dimensions (cms)	Sample manuscripts
Enormous	<i>baghdadi</i>	70 × 100	70 × 50	30-vol. Koran ms for Uljaytu's tomb at Sultaniyya, 1306–13 1-vol. Koran ms for al-Ashraf Sha'ban, 1372 [8.2] TKS, H2152 (Baysunghur album), c. 1432 [7.9]
Very large	<i>half-baghdadi</i>	50 × 70	50 × 35	Rumi's <i>Mathnavi-yi Ma'navi</i> , 1278 [9.1] 30-vol. Koran ms by Ahmad al-Suhrawardi, 1301–8 [7.2] 7-vol. Koran ms by Ibn al-Wahid for Baybars, 1304–6 [8.13] 1-vol. Koran ms by Ahmad al-Mutatabbib, 1334 [8.1] TKS, B411 (calligraphic album), c. 1420 [7.7] TKS, H2310 (Baysunghur's Album of Seven Masters), c. 1430
Large	<i>one-quarter baghdadi</i>	35 × 50	35 × 25	1-vol. Koran ms by Yaqut, 1286 [7.1] 1-vol. Koran ms by Shadhi for al-Nasir Muhammad, 1313 [8.5] 30-vol. Koran ms made at Konya, 1333
Medium	<i>one-eighth baghdadi</i>	25 × 35	25 × 17	30-vol. Koran ms by Yaqut, 1282–3 <i>Rasa'il ikhwan al-safa</i> , 1287–8 <i>Marzubannama</i> , 1299

Figure 7.3 Chart with paper sizes.

Koran manuscript and other multi-part codices associated with Rashid al-Din, bifolios one-quarter *baghdadi* size (35 × 50 cm) were used for the large Koran manuscripts by Yaqut. Bifolios one-eighth *baghdadi* size (25 × 35 cm) were used in turn for other medium-sized manuscripts by these same calligraphers, as well as other illustrated manuscripts produced in Baghdad at this time.⁵³

Manuscripts of different sizes were made for different patrons and used for different purposes. Most of the very large manuscripts made on sheets of full and half *baghdadi*-size paper were commissioned by the ruler and his courtiers as gifts for the pious foundations established around their tombs. The enormous Koran manuscript copied in *muhuqqaq* with lines of black outlined with gold alternating with lines of gold outlined with black, for example, was endowed to Sultan Uljaytu's tomb at Sultaniyya.⁵⁴ Others were made for the tomb complexes of Ghazan and Rashid al-Din.⁵⁵ To judge from the endowment deed for Rashid al-Din's pious foundation in Tabriz, these Koran manuscripts were intended for use by the Koran readers assigned to sit near the tomb and recite the scripture round the clock.⁵⁶ Paper of this large size had been used earlier – the first surviving example is a six-volume copy of Jalal al-Din Rumi's mystical poem, *Mathnavi-yi Ma'navi* made in Rajab 677/November–December 1278 (Figure 9.1) – but such 'imperial' Koran manuscripts, which stand in sharp contrast to the smaller single-volume manuscripts made by Yaqut, were in particular demand after Ghazan had made Islam the state religion in 695/1295.⁵⁷

Along with standard format, the paper produced at Baghdad in the late thirteenth and early fourteenth centuries was of extremely fine

Figure 7.4 Microscopic detail of the page with the colophon detached from the twenty-eighth part of a thirty-volume Koran manuscript copied by Ahmad al-Suhrawardi between 701 and 708/1301–8.

This magnified view shows the clear white paper and flawless black ink that Ahmad al-Suhrawardi used for his magnificent Koran manuscript, certainly one of the finest ever produced. He used a pen whose nib measured approximately 1 mm for the text and a smaller one with a nib one-half the size for the smaller subscript indicating the undotted (*muhmila*) letter.



quality.⁵⁸ Particularly white, it is thinner and stronger than that produced earlier and often has a slight sheen from the polished size. The smooth surface meant that the calligrapher's pen glided smoothly across the surface so that the strokes are a uniform blackness. When viewed under a microscope (Figure 7.4), the page copied by Ahmad al-Suhrawardi shows well-beaten long white fibers under a flawless size. Such manuscripts represent the pinnacle of technical perfection of paper and ink.

This smooth paper offered a perfect surface for decoration, and compared to the Koran manuscripts by Yaqt, those by his followers like Ahmad al-Suhrawardi show a marked increase in the amount and quality of the illumination. These manuscripts have glorious double-page frontispieces, often with rectangular panels, some with inscriptions, others without. The text on the opening pages of the later manuscripts is also arranged more logically. In the Tehran Koran by Yaqt, the right page of the opening double-page spread contains the heading and text of Sura 1 (al-Fatiha, The Opening) and the heading and opening two lines of Sura 2 (al-Baqara, the Cow), while the left page contains nine lines of text from the second chapter. By

contrast, Koran manuscripts by Yaquṭ's followers have all of Sura 1 on the right page and the opening verses of Sura 2 on the left. The double pages thus form a matched pair, with *sura* headings at the top of the facing pages. The pigments used for the illumination in manuscripts by Yaquṭ's followers are also finer, particularly the blue, which is deeper and darker, indicating a higher quality of lapis lazuli.

The increased amount of decoration meant that illumination became a more important speciality, and the calligraphers who succeeded Yaquṭ typically worked with a named illuminator. Muhammad ibn Aybak ibn 'Abdallah, the illuminator who repeatedly signed the thirty-volume Koran by Ahmad al-Suhrawardi, also signed the enormous Koran manuscript commissioned by Sultan Uljaytu, which has similar calligraphy.⁵⁹ The increasing importance of illumination in these Koran manuscripts made at the turn of the thirteenth to the fourteenth century coincides with the rising importance of painting. The Koran manuscripts are particularly important in documenting this change, for the repeated signatures and dates give us some idea about contemporary methods of manuscript production, revealing in what order the work was carried out and how long it took. From these facts, we can deduce how prestigious (and expensive) it was.

Notes in the thirty-volume Koran manuscripts penned by Ahmad al-Suhrawardi and illuminated by Muhammad ibn Aybak, for example, confirm that both calligrapher and illuminator worked sequentially from the beginning of the text to the end.⁶⁰ While this might seem logical, even self-evident, it was not always the case.⁶¹ Copying preceded illumination, for the dates of copying always antedate those of illumination, sometimes by a period of several years. For example, transcription of *juz*' 7 of the enormous Koran (TKS EH 643) was finished in 707/July 1307–June 1308, but illumination was only completed three years later in Dhu'l-Hijja 710/April–May 1311. There was some overlap between manuscripts produced by the same team, and Ahmad al-Suhrawardi seems to have begun copying the enormous manuscript, while Muhammad ibn Aybak was still finishing the decoration of the very large one. Such overlap was possible because Ahmad al-Suhrawardi could transcribe the text twice as fast as Muhammad ibn Aybak could illuminate it. Transcription of a single *juz*' of the enormous manuscript took a month and half, meaning that Ahmad al-Suhrawardi could transcribe about eight *juz*' per year. By contrast, Muhammad ibn Aybak took slightly less than three months to illuminate a single volume, meaning that it took seven years to decorate the thirty-volumes. These were expensive projects worthy of the court.⁶²

The Six Pens canonized by Yaquṭ continued to be the main scripts not only in Iraq but also in Iran, and work by Haydar, Ahmad al-Suhrawardi's counterpart there, shows how calligraphers adapted these scripts, notably *thuluth*, to architecture.⁶³ Qadi Ahmad included a short biography of Haydar among the six followers of Yaquṭ.⁶⁴ According to the Safavid chronicler, Haydar, who came from



Figure 7.5 *Detail of the inscriptions on the stucco mihrab in the congregational mosque at Isfahan signed by Haydar and dated Safar 710/July 1310.*

The inscriptions carved in three levels in various sizes of *thuluth* on a floral arabesque ground are a *tour de force* of epigraphic style. They show how the complex designs of calligraphers were executed in several levels and concave surfaces by master stucco carvers.

a family of sayyids (descendants of the Prophet through his grandson Husayn), was a Sufi and a renowned teacher of calligraphy, who instructed the viziers Taj al-Din 'Ali Shah (d. 1324) and Rashid al-Din's son Ghiyath al-Din Muhammad (d. 1336). Haydar was known as *gunda-nivis*, glossed as 'the majuscule writer' or 'the writer in large characters,' a fitting epithet as the two surviving works signed by Haydar are stunning inscriptions carved in the plaster revetment of buildings in central Iran.⁶⁵

Haydar's style is best seen in the epigraphic masterpiece from the Ilkhanid period, the stupendous stucco mihrab added to the congregational mosque at Isfahan in Safar 710/July 1310 (Figure 7.5).⁶⁶ The text contains several hadith, including one on the authority of the Prophet's son-in-law 'Ali about the eight blessings that accrue to the Prophet's descendants. The pointedly sectarian text and the date suggest that the mihrab was added to the mosque to mark Uljaytu's conversion to Shi'ism, which had occurred a few months earlier in the spring of 1310. Isfahan had been one of the first cities to receive

the sultan's order to embrace the new rite and also one of the first to revolt against the edict. According to the Moroccan globetrotter Ibn Battuta, who visited Isfahan a few years later, the inhabitants bore arms to the mosque to prevent the preacher from obeying the sultan's instructions.⁶⁷ The mosque may have been damaged, for the inscription on the mihrab suggests that the building was restored and that the fine mihrab was one of the elements added to it, presumably as a site for the new cult.

The superb design of the mihrab underscore Haydar's calligraphic skill, for he combined several sizes of *thuluth* script set against floral arabesque scrolls sprouting stippled palmettes. The tympanum is filled with horizontal lines of small script. It contains the foundation inscription with the sultan's name and titles and the date, given to the specific month, eulogized with a blessing for the particular month.⁶⁸ The tympanum is framed by a slightly larger band that contains a hadith on the authority of the 'Ibadi Traditionist Jabir ibn Zayd about the revelation of Koran 4:59. The band ends with the artist's signature, *'amal-i haydar* (work of Haydar). The largest and finest inscription on the mihrab is the rectangular frame. It contains a Prophetic hadith, reporting that anyone who builds a mosque like the nesting place dug by a partridge in the sand will receive a house in paradise. This is followed by a Tradition on the authority of 'Ali ibn Abi Talib that anyone who frequents a mosque will receive eight rewards. The bodies of the letters in the text are compressed into a narrow zone that contrasts with the elongated stems whose thickening terminals swell upwards at the edge of the concave band. The band epitomizes the finest *thuluth* calligraphy of the age.⁶⁹

Haydar, like other contemporary calligraphers, probably drew up the design for the mihrab on paper.⁷⁰ It was then transferred to the plaster, and the stucco carver's work is equally remarkable, for the stucco is not only carved on several levels but also shaped to fit a curved surface. The letters float above a dense garden of vegetation. Despite the complexity of both design and execution, the text is remarkably clear and readable.

While *thuluth* was the favored script for architectural inscriptions, its smaller counterpart *naskh* remained the most common script for transcription, in which it was regularized and often played off against a fat *thuluth* as display script. We can see this from the most ambitious project to survive from the next generation: a large and magnificent two-volume copy of the Persian national epic, the *Shahnama*, or Book of Kings. The text, composed by the poet Firdawsi in the early eleventh century, contains some fifty thousand verses. This copy, produced for the Ilkhanid court in the 1330s and known as the Great Mongol *Shahnama*, has been broken up, probably to sell the pages individually. Only fifty-eight illustrated pages and a handful of text pages are known, but originally it comprised nearly six hundred pages, each with thirty-one lines of text written out in six columns.⁷¹ Copying such a long text was time-consuming,

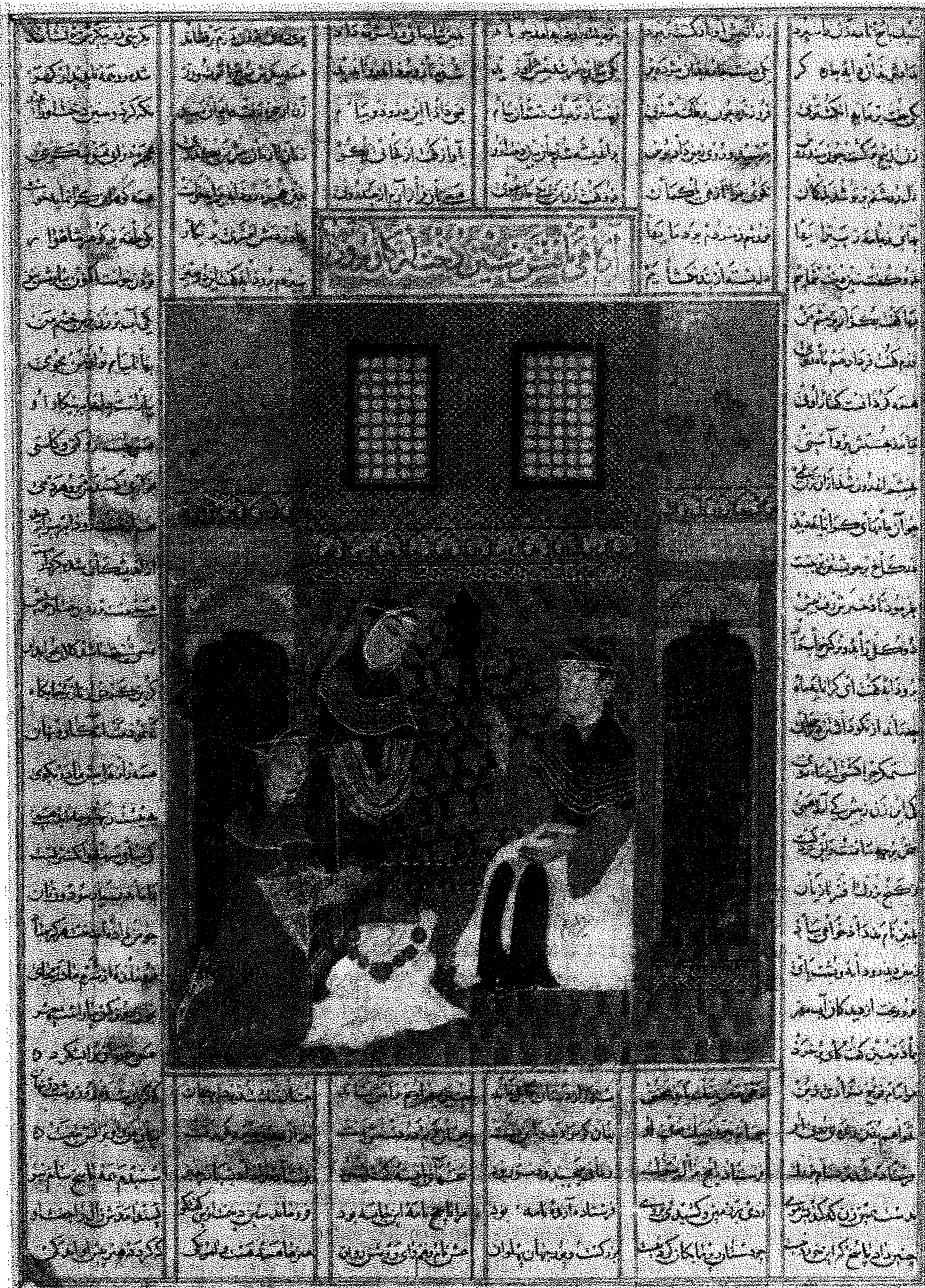


Figure 7.6 Page showing Sindukht learning about her daughter's actions, now detached but originally folio 19a in the first volume of the great Mongol Shahnama, probably done at Tabriz, c. 1335.

Abolala Soudavar has suggested that this page and others from the first volume of the manuscript may well be the hand of 'Abdallah Sayrafi, as they show many features of the style he used in signed Koran manuscripts, such as the play of dots, use of *alif madda* exclusively at the beginning of words, and dotting of final *dal*.

and to speed up the work, the text was divided into two volumes, which were later bound as eighteen quires of quaternions. To judge from the calligraphy, the volumes were copied by different people.

This page from the first volume of the Great Mongol *Shahnama* showing a painting of Sindukht learning about her daughter's actions (Figure 7.6) exemplifies the fine, even *naskh* used at the time for fancy manuscripts.⁷² Abolala Soudavar articulated several features of this hand (Figure 7.6a), particularly as distinct from that used in the second volume.⁷³ The anonymous calligrapher of volume one, whom he labeled Calligrapher A, was adept at fitting his text within the columns, whereas the calligrapher who penned the second volume, Calligrapher B, often misjudged the space needed and had to pile up the last word of the hemistich above the line at the left. Calligrapher A also played with the dots used for vocalization. For example, he set the double dots on *ta'* and *ya'* vertically even where there was sufficient space for horizontal ones. He often lined up the dot of *ba'* with the dots of a subsequent *ya'*. He also dotted final *ya'* in various places. Furthermore, Calligrapher A used long *alif madda* exclusively at the beginning of a word, whereas Calligrapher B sprinkled it more liberally across the line. Soudavar connected this correct use of *alif madda* at the beginning of a word along with the careful and correct diacritical marks with the elegant prose treatise on calligraphy written by the most famous calligrapher active in Iran during the first half of the fourteenth century, 'Abdallah Sayrafi.⁷⁴

The son of Khwaja Mahmud *al-sarrafi* (the money-changer) from Tabriz, 'Abdallah Sayrafi seems to have spent his life in his home town, the Ilkhanid capital Tabriz, and is said to have been buried in the cemetery of Chaharanab south-west of the city.⁷⁵ He designed monumental inscriptions there, although none has survived.⁷⁶ We are better informed about 'Abdallah Sayrafi's manuscript hands, known from several Koran codices.⁷⁷ He penned at least one thirty-part manuscript completed in Muharram 728/November–December 1327, written in gold *muhaqqaq* with blue vowels on medium-sized paper.⁷⁸ He also penned several smaller, single-volume copies, including one in *naskh* now in Mashhad.⁷⁹ Several features of the script he used there, such as the repeated elongation of the letters *kaf* and sometimes *ba'*, show 'Abdallah Sayrafi's familiarity with designing architectural inscriptions.⁸⁰

Soudavar's designation of 'Abdallah Sayrafi as the calligrapher responsible for the first volume of the Great Mongol *Shahnama* has several important ramifications about the practice of calligraphy in Iran during the first half of the fourteenth century. It confirms that Yaqut's followers, like the master himself, worked in several genres, transcribing both Persian literary texts and Koran codices as well as designing inscriptions. It also shows the increasing need for teamwork to produce these large and fine manuscripts. Different calligraphers may have penned different parts of a multi-volume work,⁸¹ and calligraphers often worked in teams with illuminators and painters.



Figure 7.6a

In addition to manuscripts, Yaqut and his followers used the round scripts for calligraphic specimens, many later mounted in albums. Such specimens range widely in subject, from Koranic excerpts, Traditions attributed to both the Prophet and his son-in-law 'Ali, and wisdom sayings (*wasaya*) attributed to philosophers and other learned figures like Socrates to pious phrases, sacred names, aphorisms, prayers, letters, treatises, exercises, and more. Most are in Arabic, but sayings in Persian, especially verse, became increasingly popular over the course of the fourteenth and fifteenth centuries. These calligraphic specimens were usually made as loose, single sheets. To judge from the folding, tears, holes, water stains, and other damage, some may have been carried about by peripatetic calligraphers, who traveled about in search of work at various courts. At least one was composed while the calligrapher was on the pilgrimage.⁸²

Most of the specimens that have been preserved were later mounted in albums, called in Arabic *muraqqa'* (literally, patchwork) and in Persian *jung* (literally, large ship).⁸³ In this process, the individual specimens were gathered, trimmed, repaired, and ruled before being pasted on sheets of backing paper and then attached to the page. In the fancier albums made for court patrons, the individual pages were also set in borders, which could be painted and decorated and served to unify the disparate components and compositions. The folios were then bound together, sometimes with alternating pictures, in either the codex or the concertina format. The most famous of these albums containing material from the time of Yaqut and his followers are preserved not in Iran, where they were made, but in Istanbul, where they were taken as booty or gifts and incorporated into the Ottoman archives stored in the Topkapı Palace. The larger and more elaborate albums contain both calligraphy and illustrations, including drawings, paintings, stencils, maps, and other material, but the earliest ones (B411 and H2310), compiled during the reign of Shahrukh, Timurid ruler at Herat from 1405 to 1447, contain only calligraphy.⁸⁴

This page from Album B411 with three calligraphic specimens, presumably all by the same hand (Figure 7.7), gives a good idea of the work produced in the mid-fourteenth century.⁸⁵ The specimen at the top is a large basmala in *thuluth*, with the opening words *bismi'llah* (in the name of God) written in large size and the modifiers *al-rahman al-rahim* (the merciful, the compassionate) written in a smaller size above the word *allah*. On the lower left is a small band with a line of Arabic poetry written in a script like *thuluth* but with so many unauthorized connections that it should be considered *riqa'*. The large specimen in the lower right contains the signature of the calligrapher al-Hajj Muhammad ibn Muhammad al-Musharriji and the date Dhu'l-Hijja 761/October–November 1360.

Hajj Muhammad, like his teacher 'Abdallah Sayrafi, is known from both signed works and written sources. He carries several epithets. Often he is called al-Tabrizi, and he seems to have spent his



Figure 7.7 Page with specimens by al-Hajj Muhammad ibn Muhammad al-Musharriji dated Dhu'l-Hijja 761/October–November 1360 from a calligraphic album probably assembled at a Timurid scriptorium in the early fifteenth century.

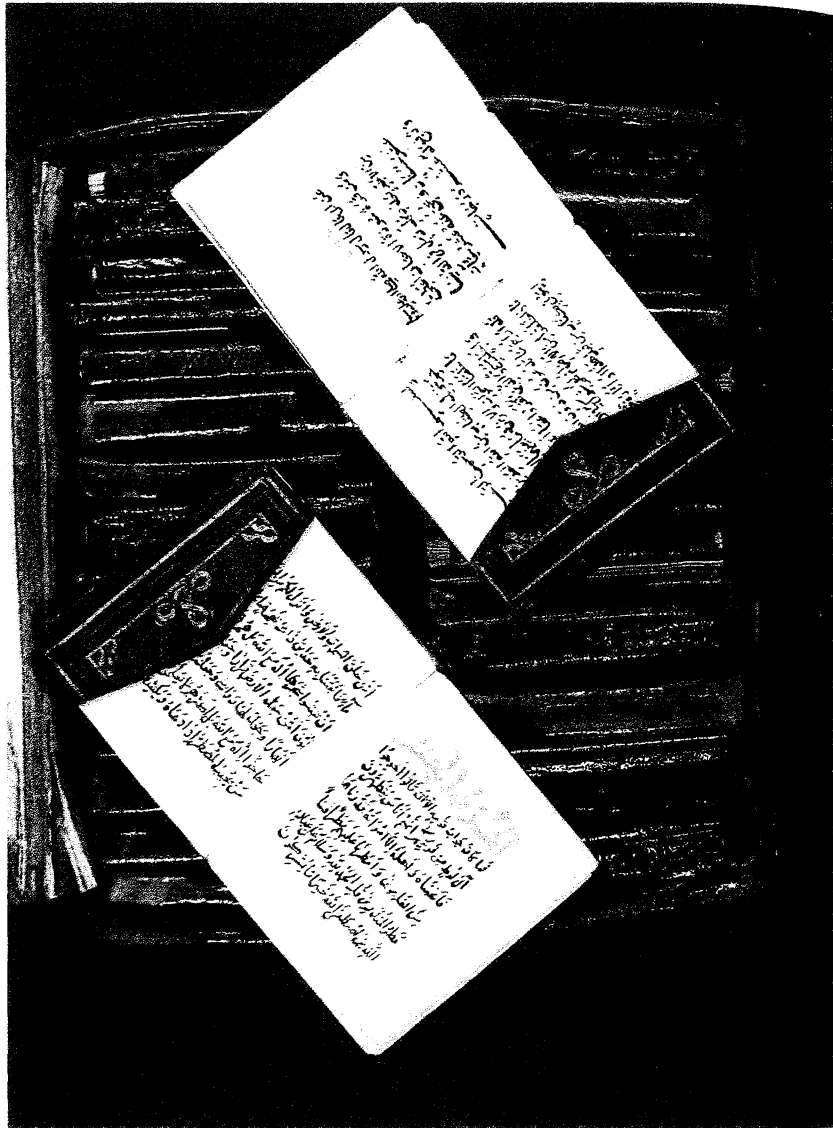
This page comes from one of the earliest surviving calligraphic albums, in which specimens of different sizes, shapes, scripts, texts, and languages were cut and pasted on borderless sheets, sometimes on different axes. The disparate fragments may represent the family collection of Hajji Muhammad Bandgir, which was made up into an album in the early fifteenth century at a Timurid scriptorium.

working life in his hometown Tabriz. Sometimes he is called *al-tughra'i*, meaning that he drew up the *tughra*, the ruler's official emblem.⁸⁶ More often he is called *al-musharriji* or *bandgir*, Arabic and Persian terms meaning brick-joiner or pointer of the spaces between bricks.⁸⁷ Hajj Muhammad was a noted designer of architectural inscriptions,⁸⁸ and some of his calligraphies, like the larger *thuluth* specimen at the top with the basmala, might also have served as models for epigraphic texts. The tall upright *alif* measures almost 30 cm, some sixty times the width of the penstroke and the size of some of the large stucco bands in contemporary mihrabs (Figure 7.5). Such a large script, which was used not only for headings but occasionally for documents,⁸⁹ was also known as *tumar*, from the word for scroll. Its opposite was *ghubar* (literally, dust), the smallest of the scripts, said to have received its name because it resembled motes of dust. Though some authors considered this pair as separate scripts, many Iranian chroniclers considered *tumar* to be any of the Six Pens made large, in contrast to *ghubar*, any script made small.⁹⁰

Tumar's tiny counterpart, *ghubar*, is often thought to derive from *riqa'* and/or *naskh*, and modern writers often speak of *naskh-i ghubar*, meaning a very small *naskh*. The minuscule letters in *ghubar* script are usually less than 3 mm, often as small as 1.3 mm. Given their small size, they are usually written without serif, and the eyes of 'ayn, fa'/qaf, and similar letters can be filled to make the script appear even smaller. *Ghubar* script is said to have been invented to write messages carried by pigeon post, but calligraphers in Iran soon came to use it in

Figure 7.8 Opening pages of juz' 20 (containing Sura 27: 56–62) and juz' 26 (containing Sura 46: 1–4) from a boxed set of a thirty-volume Koran manuscript with seven lines per page.

The tiny script used in this manuscript, with *alif* measuring less than 2 mm, is often called *ghubar* (dust). It is said to derive from pigeon post.



other ways, notably for amulets, talismans, and even entire copies of the Koran. These manuscripts were sometimes written in miniature thirty-volume sets, which were stored in leather boxes. An intact manuscript in Tehran (Figure 7.8), for example, is boxed in a container measuring 10×12 cm.⁹¹ Each page in the thirty *juz'* measures a mere 4×4 cm, but has seven lines of script per page, with a ruled area of less than 3 cm on a side. Headings are written in a larger gold script, in which *alif* reaches 0.5 cm, about twice the height of *alif* in the text. The manuscript is unsigned and undated, but has been attributed to the thirteenth or fourteenth century, a dating that might be confirmed by further examination of the paper and binding.

The Six Pens under the Timurids and Turkomans

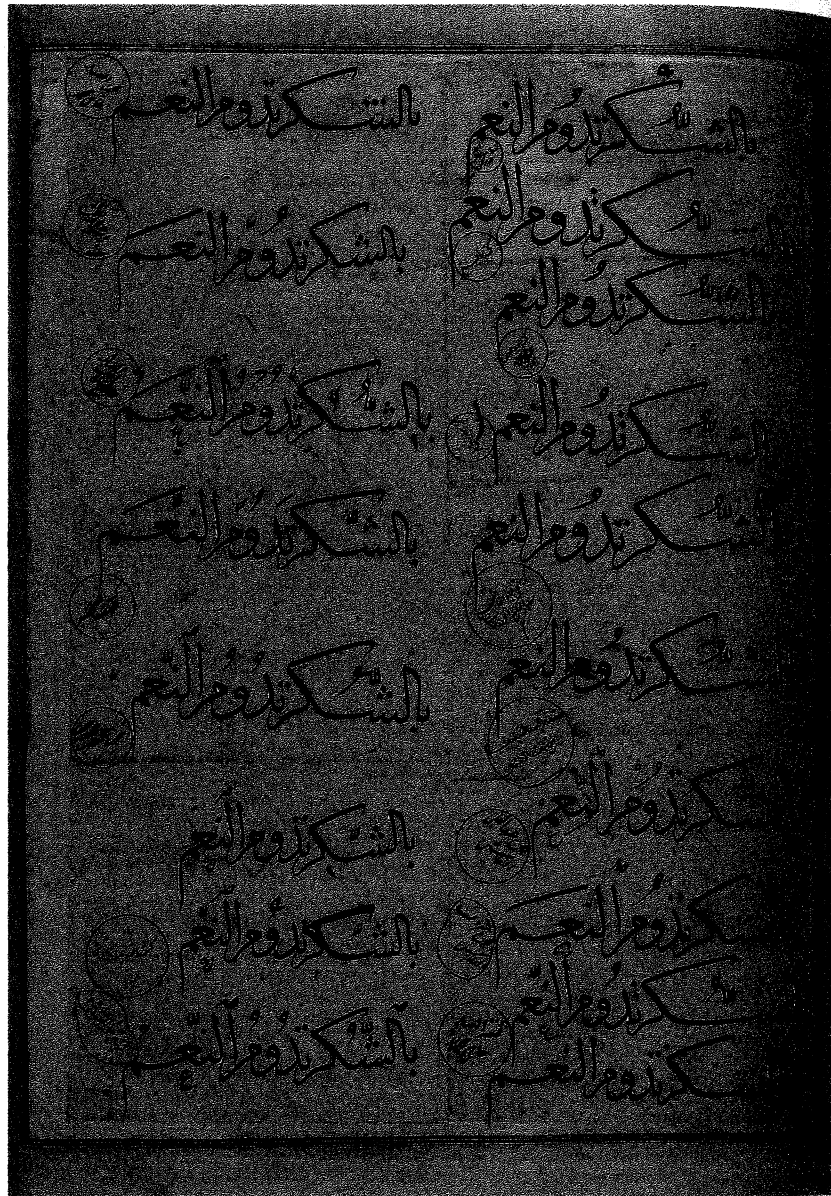
In the early fifteenth century under the patronage of the Timurid ruler Shahrukh and his son Baysunghur, there was a conscious revival of Ilkhanid traditions, probably as a sign of dynastic affiliation to affirm Timurid legitimacy as the Ilkhanids' successors. This revivalism extended to the arts, including calligraphy, and Timurid masters of the Six Pens adopted the calligraphic styles canonized by Yaqut.⁹² One way we can see this conscious revival of the past is the copying of older texts. Shahrukh had the universal history composed by the Ilkhanid vizier Rashid al-Din in the early fourteenth century not only recopied but also extended by his own historian Hafiz-i Abru. The replacement volumes of the old text and the copies of the extension are so similar to the originals that they are often mistaken for work of the previous century. It took Richard Ettinghausen's keen eye to point out the conservatism of the artists who painted the miniatures, dubbing their work 'the historical style of Shahrukh,'⁹³ and only recently has Abolala Soudavar sorted out the difference in content.⁹⁴ The calligraphic styles differ as well, with Timurid calligraphers using a spacious flowing *naskh* that echoed – but did not exactly match – the script used in the original volumes.

This desire to connect with the past is also clear from the calligraphic albums compiled at this time, B411 and H2310. Both are mounted on paper of half-*baghdadi* size, the format that had been standard in the early fourteenth century (Figure 7.3), and both contain runs of calligraphies by Yaqut and his followers. Based on the simple method of compilation, David Roxburgh suggested that the second part of B411, containing the works of Hajji Muhammad *bandgir* and his family, is the earliest album to survive, for it has specimens of disparate sizes, shapes, and scripts mounted rather haphazardly on the page without border or outer rulings.⁹⁵ In the page illustrated here (Figure 7.7), for example, all three specimens are mounted sideways to fill the page. The Timurid link to the past is even clearer in the other album compiled at this time, H2310. Identified in a later frontispiece as Baysunghur's Album of Seven Masters, it contains calligraphies in the Six Pens by Yaqut and six followers. In contrast to the patchwork arrangement of B411, the calligraphic specimens in H2310 are organized more like a Koran manuscript, with written surfaces to be read in linear sequence. During assembly, the album pages were even decorated to look like work of the previous century by adding palmettes that resemble those used in Koran manuscripts penned by Yaqut (Figure 7.1).

These albums document the growing interest in the preservation, display, and history of a calligraphic tradition and its practitioners descended from Yaqut. They also illustrate the increasing range of activities carried out by an individual calligrapher, who penned not only manuscripts but also single specimens, some designed for architectural revetment and others as models (Arabic *mithal*) to be copied

Figure 7.9 Calligraphic exercise with a phrase in *riqa'* penned by Ahmad Rumi and copied seventeen times by other calligraphers.

This page from the so-called Baysunghur Album shows the method of copying practiced in the fifteenth century. The phrase at the top is ascribed to Ahmad Rumi, a calligrapher at the court of the Timurid prince and bibliophile Baysunghur and perhaps his teacher. The eighteen copies of it, attributed to Baysunghur and other calligraphers, show how students varied the spacing, diacritical markings, and vocalization.



by students. In this sense, Roxburgh compared these albums to manuals of *insha'*, the genre of literature comprising exemplary letters or documents intended as style books for chancery scribes.⁹⁶ As part of the revival of the past, Yaqt became a cult personality. His hand was taken as the exemplar of the Six Pens; he himself was seen as the teacher of six pupils.⁹⁷ Calligraphers began to copy works in Yaqt's hand, both manuscripts and individual specimens.

Copying was the method by which calligraphers learned to imitate – and paid homage to – their earlier masters. We can see this

from a page (Figure 7.9) in another album compiled at this time: the so-called Baysunghur Album (H2152).⁹⁸ Twice the size of the B411 and H2130 (therefore on sheets on full-*baghdadi* size), it contains pictures as well as 144 calligraphic specimens written by masters ranging from Muhammad ibn Haydar al-Husayni in Muharram 717/March–April 1317 (fol. 31a) to the Timurid prince Ibrahim Sultan in 823/1420–1 (fol. 6a).⁹⁹ This page, which may have been reformat-
ted from a scroll, is assembled from seven pieces of paper pasted together with small ascriptions added after the pieces were joined. The texts repeat the phrase ‘Favors continue through gratitude’ seventeen times. The one at the top right is ascribed to ‘our master’ (*khatt-i mawlana*) Ahmad Rumi. Beneath is a copy by Baysunghur, followed by those by other calligraphers at the Timurid court, most of whom are otherwise unknown.¹⁰⁰ The phrase is written in *riqa* script, in which the letters resemble those in *thuluth*, but with the unauthorized connection between *alif* and *lam*. The copies show how different calligraphers varied the same phrase by opening up the space, placing the dots differently, and modifying the vocalization. The person who compiled the page also used different verbs to ascribe the work to the different calligraphers, including various forms of *kataba*, *mashaqa*, and *harrara*, but all of them seem to indicate the same work of copying.

Ahmad Rumi was, according to Qadi Ahmad, one of Yaqut’s followers and a master of the Six Pens, whose style is even said to have eclipsed that of his predecessor.¹⁰¹ To judge from the layout of this page, in which Baysunghur’s sample is placed directly below the model, Ahmad Rumi may have been Baysunghur’s teacher. The calligrapher certainly worked in the prince’s scriptorium, for he penned the earliest manuscript associated with the prince: a copy of Juzjani’s history, *Tabaqat-i nasiri*, dated 814/1411–12.¹⁰² Ahmad Rumi used *riqa* at the end of the historical manuscript for the title, dedication, and colophon, but he penned the main text in *naskh*, the script used for most prose manuscripts in this period.

A distinctive style of *naskh* developed at this time in Shiraz, a thriving center of manuscript production in south-western Iran under the governorship of Baysunghur’s brother Ibrahim Sultan (d. 1435).¹⁰³ We can see this style of *naskh* not only in small Koran manuscripts, such as one transcribed by the prince himself,¹⁰⁴ but also in prose works, such as a dispersed manuscript of Sharaf al-Din ‘Ali Yazdi’s *Zafarnama* copied by Ya‘qub ibn Hasan, known as Siraj al-Husayni al-Sultani, and completed in Dhu’l-Hijja 839/June–July 1436 (Figure 7.10).¹⁰⁵ The similarity between the scripts in the two manuscripts is hardly surprising, for the historical text was composed in Shiraz for Ibrahim Sultan, and this lavishly illustrated copy was probably intended for him, although he died a year before it was completed. The thin but sturdy script is characterized by long tails on the final forms of letters like *nun*, *sin*, and *ya* (Figure 7.10a). These swooping tails, which often enclose the following word or phrase to create a



Figure 7.10 Double-page folio, originally 373b–374a, from a dispersed manuscript of Sharaf al-Din 'Ali Yazdi's *Zafarnama* with twenty-one lines per page copied by Ya'qub ibn Hasan, known as Siraj al-Husayni al-Sultani, and completed in Dhu'l-Hijja 839/June–July 1436.

Shirazi calligraphers in the early fifteenth century used a distinctive style of *naskh* with long, swooping tails that often encircle the following syllable, word or even phrase and have an angular bend at the bottom. This style was exported to Anatolia and sultanate India by calligraphers like Siraj al-Husayni, who himself went to Bihar, where he wrote a treatise on calligraphy entitled *Tuhfat al-muhibbin*. Calligraphers were also becoming increasingly skillful in manipulating layout, using diagonal bars of text to stretch out a text and frame an illustration.

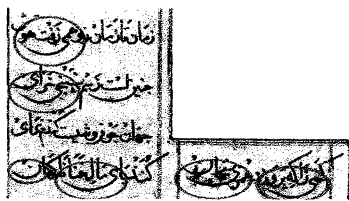


Figure 7.10a

sublinear rhythm, have a distinctive angle at the bottom, made by twisting the pen in the middle of the stroke. The tail is wedge-shaped, like the one used in broken cursive. When combined with the verticals that are pitched to the left, they push the eye to the end of the line, where letters or syllables are often piled up in a second story. The swooping tail is found already in manuscripts produced at Shiraz under the Injuids, but the tails here are more regular.¹⁰⁶ This particular variant of *naskh* with an angled stroke to the swooping tails became a hallmark of manuscripts produced in Shiraz under Ibrahim

Sultan. Shirazi scribes then took this style of script, along with related styles of painting, to both Anatolia and sultanate India.¹⁰⁷ A similar *naskh* with swooping tails was also used at other Timurid courts, but the style is more fluid,¹⁰⁸ and the Shirazi *naskh* is distinctive.

Eleanor Sims' careful reconstruction of the 355-folio manuscript of Yazdi's *Zafarnama*, the first known copy of the text, shows how the calligrapher Siraj al-Husayni deliberately manipulated format. While copying the text, he left space for thirty-seven large paintings, which were then executed in the energetic and colorful style typical of Ibrahim Sultan's atelier. To coordinate the setting of text and image on the many double page spreads, Siraj al-Husayni reduced the writing from the standard twenty-one lines that run across each page by introducing diagonal bands and vertical strips down the outer margins. The text thus frames the large spaces left for the double page paintings, which the artist(s) then unified with a common horizon line or balcony that projects across the two leaves. On this page showing the mourning over the catafalque of Timur's grandson Muhammad Sultan, for example, conical hills run across the top of both pages, whose communality is enhanced by the repeated trees and composition. On folios around an illustration, Siraj al-Husayni also penned the text, both poetry and prose, in a series of diagonal bands. These diagonal bands stretch out the text so that the appropriate incident is recounted next to an illustration. They also served to heighten the emotion and visual impact of an illustration. Like the stepped bands and vertical stripes, they frame the illustration. Their presence alerts the reader, when turning the pages of the manuscript, to an approaching illustration.¹⁰⁹ Calligrapher and painter are working together here to produce a unified aesthetic.

The Koran manuscript copied by Ibrahim Sultan in *naskh* is the exception rather than the rule, and Koran manuscripts penned in *muhaqqaq* and its smaller counterpart *rayhan* were far more common in this period. The biggest and best known is the dispersed copy often attributed to Baysunghur, but likely made for his grandfather Timur (r. 1370–1405).¹¹⁰ The elephantine manuscript fits Qadi Ahmad's description of the copy penned for the Timurid ruler by 'Umar 'Aqta' (the one whose hand has been cut off; i.e., the left-handed): each line in it was said to measure one cubit (*dhar'*) long; the manuscript was so heavy that it had to be transported in a wheelbarrow.¹¹¹ Timur favored the colossal, as shown by his congregational mosque at Samarkand, known as the Mosque of Bibi Khanum (1399–1404), whose size and magnificence made it a fitting testament to his new capital.¹¹² The largest in Central Asia, it was able to hold 10,000 worshippers. Timur's grandson Ulugh Beg ordered a special stone Koran stand erected in the courtyard of this mosque, probably designed to hold this enormous (and correspondingly heavy) codex.¹¹³ When the Afghan Nadir Shah looted Samarkand in the eighteenth century, the manuscript was apparently taken to



Figure 7.11 Page containing Sura 45:10–14 from a multi-volume Koran manuscript with seven lines per page.

The pages in this elephantine Koran manuscript measure a whopping 1.7×1 m, making it one of, if not the largest copy made in medieval times. To produce the 1,600 sides in the manuscript would have required some 2,700 m² of paper – two-thirds of an acre. The calligrapher, who is often identified with 'Umar 'Aqta', used a special pen whose nib measured more than 1 cm for the text and a smaller one about one-third that size for the vocalization.

Khurasan, for the English traveler James Baillic Fraser, who journeyed through that region in 1821–2, described seeing part of this copy in a shrine at Quchan. A handful of pages ended up in the shrine library at Mashhad; others in Tehran; and still others in private collections.

Each page (Figure 7.111) contains seven lines of text, a relatively unusual arrangement, inscribed on thick sheets of creamy white paper that measure a whopping 1.75×1 m.¹¹⁴ Assuming that the pages had the requisite borders on four sides, then each page would have measured on the order of 2.25×1.5 m.¹¹⁵ The text is transcribed only on one side, probably because the other side of the sheet was too rough to take the ink smoothly. This roughness was likely the result of the method used to make the paper: it is impossible to produce such huge sheets by the regular method of dipping the mold into the pulp, for the filled molds would have weighed a back-breaking 390 pounds (172 kilograms). Instead, the papermakers must have resorted to the traditional method of ladling pulp into floating molds.¹¹⁶ Such a technique requires many more molds (each sheet had to dry before it could be removed from the mold), thereby explaining why different pages have different numbers of laid lines per cm.¹¹⁷ Papermakers still found it difficult to make such gargantuan sheets, and some of the pages, like this one, are made from pieces that have been patched together.¹¹⁸ Such piecing was one of the many techniques of speciality papermaking that developed at the Timurid and Turkoman courts, when calligraphic specimens were mounted on pieces of different colored paper and bound in albums (see Chapter 2).

The glory of this gigantic manuscript is its majestic script, the type of *muhaqqaq* sometimes called *jali* (clear or plain) and later *jalil* (great or glorious). A special pen was needed to produce the rhomboidal points and strokes that measure more than one centimeter wide and fourteen centimeters tall. Another pen with a nib one-third that width was used to add vocalization. Other punctuation, such as the full stop indicated by the letter *ta'* (for *mutlaq*, absolute) or the optional stop indicated by the letter *jim* (for *ja'iz*, permitted), is added delicately in red. Other than a simple gold and blue ruling, the text is left plain, with verses marked only by small roundels in gold surrounded by blue.¹¹⁹

This page exemplifies the triumph of calligraphy over illumination. The strong verticals of tall letters form the backbone of the page. The grid is broken occasionally by diagonals, such as the sweeping upper stroke of *kaf* and the large winged strokes of the *lam-alif* combination (the second letters of the page) that soar like the wings of a stork. Much of the power of the page comes from the large amount of blank space. The bodies of the letters are squished into a narrow zone near the baseline. Descending letters are correspondingly compressed, their nesting tails often set parallel like hairpins (Figure 7.111a). The effect is enhanced by the wide voids (some 7 cm) left between



Figure 7.111a

lines. This manuscript exemplifies the conspicuous consumption of paper, the main material.

This elephantine manuscript was one of several large Koran manuscripts in *muhaqqaq* made under the Timurids and Turkomans, some transcribed by princes themselves like Ibrahim Sultan.¹²⁰ Other, unsigned copies were smaller.¹²¹ In these manuscripts, the majestic script is accompanied by splendid illumination for opening pages and chapter headings, in which the text is often penned in gold outlined in black, with ultramarine used to fill the blind letters.¹²² The extraordinary illumination is accompanied by headings in a variety of scripts, ranging from various of the Six Pens like *thuluth* and *riqa* to a distinctive spindly kufic with interlaced stems.¹²³

In addition to juxtaposing the text script with different display scripts for headings and colophon, calligraphers of this period revealed in displaying their talents by combining several scripts for a continuous text on the same page. Used occasionally in the twelfth century (Figure 6.13), this format became widespread in Iran and surrounding areas at this time. In one arrangement found in several Koran manuscripts, three lines of large script sandwich two blocks with smaller script, often in a different color. A single-volume Koran manuscript in Dublin, for example, has three lines of large script in gold outlined in black with blue for the eyes of the letters, sandwiching two blocks, each with six lines of black *naskh*. To further enliven the page, the calligrapher wrote the top and bottom lines of large script in *muhaqqaq*, but used *thuluth* for the middle line.¹²⁴

One of the most complex examples juxtaposing large and small scripts is a thirty-volume copy of the Koran transcribed in 888/1483–4 by Zayn al-‘Abidin ibn Muhammad, *al-katib* al-Shirazi (the Shirazi scribe), for the Aqqoyunlu ruler of Tabriz, Ya‘qub Beg (r. 1478–90).¹²⁵ Regular pages resemble the typical Koran manuscript, with three lines of large script – the top and bottom in black *muhaqqaq*, the middle in gold *thuluth* – sandwiching smaller blocks with two lines of black *naskh*, sometimes with unauthorized connections between letters and with stops indicated in red.¹²⁶ The opening pages have rich illumination, much of it in blue, but Zayn al-‘Abidin reserved his finest calligraphic skills for the closing page of each *juz*, in which he juxtaposed as many of the Six Pens as possible. In this page (Figure 7.12), for example, he wrote the top line, as elsewhere, in a bold black *muhaqqaq*. The second line containing the end of the Koranic text is written in *naskh*, the small script found on regular pages, but with an unauthorized connection between the *ra*’ and *ya*’ of *nasirin*, the last word of the Koranic text. For the third line offering God’s affirmation, he used the same small script but increased the number of unauthorized connections so that it resembles the *riqa* that he used elsewhere for his signature.¹²⁷ Line four, the large line in the center, continues with Muhammad’s affirmation, written like its counterparts on regular pages in a large and bold *thuluth* penned in gold outlined in black. Compared to the large line of *muhaqqaq* at the top, the central

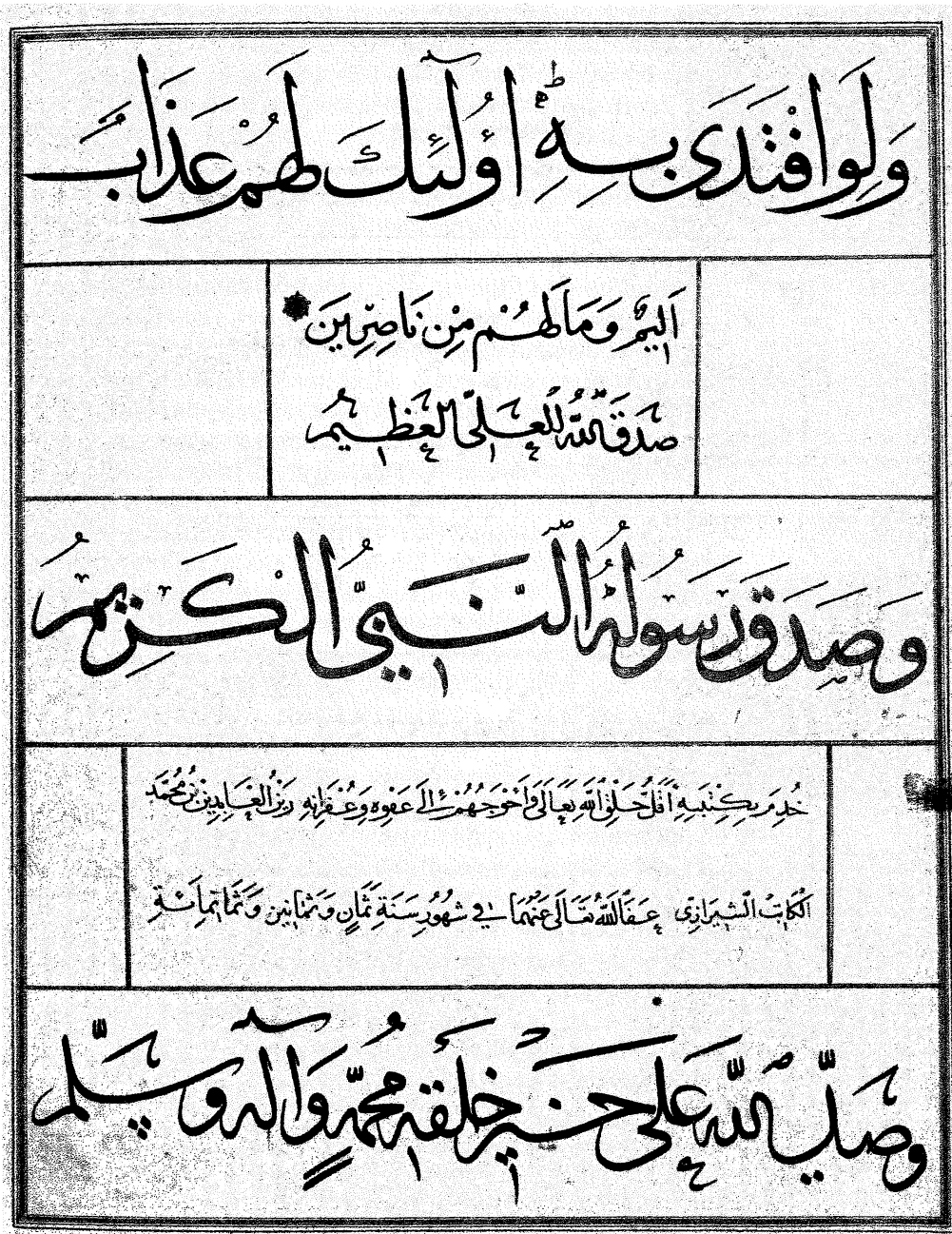


Figure 7.12 Page with Sura 3:91 and the colophon from a thirty-volume Koran manuscript with seven lines per page transcribed by Zayn al-'Abidin ibn Muhammad al-Shirazi in 888/1483-4.

Zayn al-'Abidin transcribed this Koran manuscript for the Aqqoyunlu ruler Ya'qub Beg with large lines of *muhaqqaq* and *thuluth* sandwiching smaller boxes of *naskh*. He reserved his finest effects for the colophon pages to each volume, juxtaposing as many of the Six Pens as possible on the same page. In this case, he used the standard *muhaqqaq* for the first, *naskh* for the second, a *naskh* verging on *riqa'* for the third, the standard *thuluth* for the fourth, *rayhan* for the fifth and sixth lines, and *tawqi'* for the seventh line at the bottom.

line of *thuluth* script is more curvilinear, the letters are nestled within one another, the tails of *mim* and other letters return upwards, *alif* is slightly shorter, and final *ha* is open like a squiggle.

Zayn al-‘Abidin introduces two more scripts for the bottom three lines. The two lines in the lower box containing his signature and the date are written in *rayhan*, the smaller and lighter counterpart of the large *muhaqqaq* used at the top. Compare, for example, the closed final *ha* in both scripts. Finally, for the bottom line with more praises to Muhammad and his family, Zayn al-‘Abidin used *tawqi*, the large counterpart of the small *riqa* used in the third line. Note, for example, the opening phrase in which the final *alif maqsura* of *salla* provides a seamless connector to the initial *alif* of *allah*.

Such a format is not to all tastes. This mixture of scripts was not popular in contemporary Egypt and Syria, where a change in script indicated a change in text (see Chapter 8), and some modern experts, accustomed to the Arab tradition, do not accord it high praise.¹²⁸ This format seems to have been especially appealing in Iran and adjacent lands at this time as part of the taste for calligraphic specimens, which often juxtaposed different scripts written at different angles in different colors. Nor were these six scripts the only ones mastered by Iranian calligraphers in this period. Many of these same artists were even better known for their work in the hanging scripts.

The hanging scripts

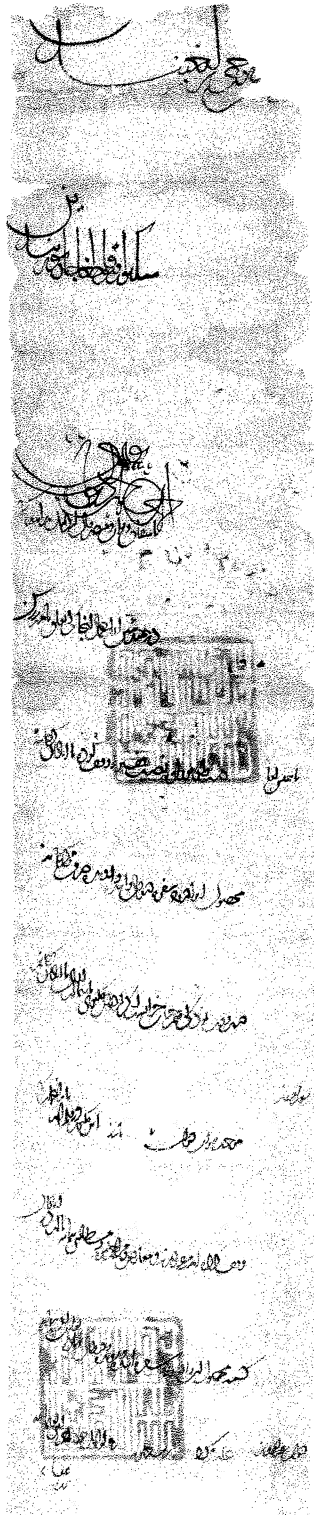
At the same time that Yaqut and his followers in Iraq and Iran were refining the round scripts known as the Six Pens, calligraphers in the same region were also developing two new styles of hanging script called *ta‘liq* and *nasta‘liq*. Virtually all Safavid authors – from Dust Muhammad writing in 1544, to Qadi Ahmad, writing a century later – credit Taj al-Din Salmani, a scribe working in the court atelier under the great warlord Timur, with the invention of *ta‘liq*, and his contemporary Mir ‘Ali Tabrizi with the invention of *nasta‘liq*.¹²⁹ Extant examples show, however, that these scripts had been developed much earlier and that these famous calligraphers – just like their predecessors Ibn Muqla, Ibn al-Bawwab, and Yaqut – were responsible only for standardizing and refining scripts that had evolved over a long period. Their names were, in short, convenient pegs on which to hang already fashioned (and fashionable) coats.

These hanging scripts were particularly suitable for writing Persian.¹³⁰ Persian differs from Arabic in its proportion of straight and curved letters. It also lacks the definite article *al-*, whose upright *alif* and *lam* lend a distinct verticality and rhythm to text written in the Arabic language. It is no surprise, therefore, that both of the hanging scripts developed in Iran and then spread to India and Turkey, where they were used for both Persian and Turkish. They were rarely used for writing Arabic (for one exceptional manuscript of the Koran in *nasta‘liq*, see Figure 10.7) and were never popular in the Arab lands.

Ta'liq, literally meaning the 'hanging' or 'suspended' (script), was the typical chancery hand used in this period. A highly stylized script, it is commonly said to have evolved from *naskh*, *riqa'*, and *tawqi'*. This explanation makes sense, for *ta'liq* shares many peculiarities with these scripts, but is more stylized. It revels in curvilinear elements, extraneous loops, extreme contrasts between compression and expansion, and connected letters, all traits that make it difficult for the novice to decipher. *Ta'liq* was used rarely for manuscripts, sometimes for poems and calligraphic specimens, and typically for decrees (Persian *firman*) and other official documents such as diplomatic correspondence and letters of patent and congratulation, which are usually written in widely spaced lines that curve and ascend at the end of a line on the left.¹³¹

Ta'liq had a long gestation. Some modern writers on calligraphy suggest that the sinuous style of the letters goes as far back as the Pahlavi and Avestan alphabets of pre-Islamic times and name Khwaja Abu'l-Al (of whom nothing is known) or the tenth-century scribe Hasan ibn Husayn 'Ali al-Farisi *al-katib* as the originator of the style.¹³² Such a derivation must remain hypothetical, for no examples of these hands survive. Using the evidence from Persian manuscripts, Francis Richard identified several features that prefigure *ta'liq* in the regular round script used to transcribe Persian manuscripts in the pre-Mongol period.¹³³ Most notable is the connection of the letters *alif*, *dal*, *ra'*, *lam*, and *waw* to the following letter. These same ligatures are also found in *riqa'*, but the letter shapes differ in the two scripts. The unorthodox connections in *ta'liq* also led to modifications in some letter shapes. *Alif*, for example, usually has a serif on the upper left, as opposed to the right-hand one found in other round scripts. Richard illustrated these features in several manuscripts dating from the late thirteenth and early fourteenth centuries that were transcribed not only in Iran, but also in Anatolia, for the Rum Saljuqs also used Persian as the language of court.

By the late thirteenth century *ta'liq* had achieved a definitive style, sometimes called *ta'liq-i qadim* (old *ta'liq*) or *ta'liq-i asl* (original *ta'liq*), probably driven in part by the burgeoning Ilkhanid bureaucracy's need to standardize written Persian. One early example is a tax decree dated Jumada II 692/June 1292 (Figure 7.13).¹³⁴ The text on the scroll is written in a mixture of languages that exemplifies the cosmopolitan nature of Ilkhanid rule.¹³⁵ The first three lines, containing the heading written in larger script, are in Turkish. The opening line names the Ilkhanid ruler Gaykhatu (r. 1291–5), here called Irinjin Torji (jewel diamond), the Tibetan name conferred upon him by Buddhist priests or scribes. The second line names three Mongol amirs who were the real power behind the throne during Gaykhatu's short reign: Shiktür, Aq-Buqa, and Toghachar. The third line displays the emblem (*tughra*) of Ahmad, referring to the vizier Sadr al-Din Ahmad Zanjani, minister of finance. The nine lines in Persian in smaller *ta'liq* script contain the main text, granting tax



exemption to a village near Ardabil that had been endowed to a Sufi hospice.

The Ilkhanid decree shows some of the same features as the one issued by the Fatimid chancery in 530/1136 (Figure 6.7). In both cases, the decree is written on a long paper scroll approximately a quarter of a meter wide, though the Ilkhanid scroll, incomplete at the top, is only one-quarter the length of the Fatimid one. In both cases the scribes left wide spaces between lines, a sign of conspicuous consumption meant to underscore the importance of the sender, and wrote across the line so that the words ascend and pile up on the left in order to prevent additions at the end. In both cases a larger script distinguishes the names of the officials who issued the decrees.

Close scrutiny, however, reveals significant differences between the scripts used for the texts in the Fatimid and Ilkhanid decrees. The Fatimid decree, written in Arabic in *riqa'* script, uses many words with the definite prefix *al-* (the), and the individual words generally sit flat on the baseline. In the Persian text, by contrast, the letters in the individual words slope from upper right to lower left, while the words rise in steps. The sloping nature of the script is enhanced by the long curving tail of the final letter in each word. These long tails are found not only on letters that were often extended in other scripts, such as *ba'*, *lam*, and *ra'*, but even on final *fa'/qaf*, so that almost every word ends with an extended looping tail. Moreover, there are more unauthorized connections than were found in earlier styles. *Dal* or *ra'*, for example, is almost always connected to final *ha'*.

The Ilkhanid decree also shows several innovations in format. One is comparable to the *elevatio* of Western diplomatic, in which benedictions and names of important people are lifted out of the text and made more prominent, in this case by setting them in the right-hand margin. In the decree issued under Gaykhatu, the phrase 'everlasting' (*ruz-afzun*) is set in the right margin four lines up from the bottom. It is the benediction following the word 'government' (*dawlat*) mentioned in the middle of the line. A carat in the middle of the line shows the reader where to insert the word. Similarly, the name Baytmish Aqa, the amir who endowed the village, is set to the right of the third line of the text, following his designation at the end of the previous line as the 'great amir' (*amir-i buzurg*). After the Ilkhans converted to Islam, the names of God were often set at the side in this way. Setting off such words in the margin made it easier for the reader to grasp the subject of the text without reading the whole document.

Another significant innovation in the Ilkhanid scroll is the use of a seal stamped in red to cover the joins between the sheets of paper-making up the roll (Figure 7.13a), thereby preventing the unauthorized addition of extra sheets. This royal seal (*al-tamgha*) was sent by the Yuan emperor Qubilai from his capital at Khanbaliq to mark the investiture of the *il Khan*, his nominal subordinate in Iran, and entrusted there to the minister of finance, who was authorized to stamp all fiscal decrees. Such seals were written in *phagspa*, the script

drawn up by a Tibetan lama and introduced by Qubilai in 1269.¹³⁶ Once the Ilkhanids had declared their independence from the Great Khans in China, they issued their own seals written in Arabic in the script closest to *phagspa*, square kufic.¹³⁷

Chancery clerks (*munshi*) continued to use *ta'liq* for documents issued from the Bosphorus to the Indian subcontinent from the Mongol period onwards for several hundred years. In order to write faster, clerks streamlined the script by increasing the number of unorthodox ligatures and dropping the pointing on many letters, features that make it more difficult to read the script and also more difficult to alter the text. Some letters were reduced in size, while others were written with thinner strokes or in new shapes. This new style, known as *shikasta ta'liq* (broken *ta'liq*) to differentiate it from the older style, was used systematically from the end of the fourteenth century. According to the version given by Safavid chroniclers, after the script was 'invented' by Taj al-Din Salmani, it was 'perfected' by 'Abd al-Hayy Astarabadi, chief clerk under Timur's great-grandson Abu Sa'id (r. 1451–69).¹³⁸ He developed two varieties – a more flowing style associated with the Timurids in Khurasan and a more linear and solid style associated with Aqqoyunlu in Iraq and Azerbaijan.¹³⁹ Chancery clerks continued to use these styles, as shown by a handful of surviving documents issued by the Turkoman chanceries.¹⁴⁰ None is signed, but examples like a letter from the Aqqoyunlu ruler Uzun Hasan to the Ottoman sultan Bayazid show a standard format and a script even more conventionalized than that used in the Ilkhanid decree.¹⁴¹

Though most common for court documents, *ta'liq* was also used for shorter specimens that were later gathered in albums. These pieces are often signed, thereby enabling us to identify individual hands.¹⁴² The Aqqoyunlu sultan Ya'qub Beg himself was a master of *ta'liq*.¹⁴³ So was his grand vizier Shaykh Najm al-Din Mas'ud.¹⁴⁴ Another piece dedicated to Ya'qub Beg preserved in one of the albums in Istanbul (Figure 7.14) is signed by 'Abd al-Hayy ibn Hafiz Shaykh Muhammad al-Bukhari.¹⁴⁵ The specimen, which offers praises to the sultan who traverses the celestial sphere, the Jamshid whose throne is in the orb of the sky, represents some of the finest calligraphy penned in Iran in the late fifteenth century. Its value is clear from the materials used. It is written on expensive paper that is tinted deep mauve and sprinkled with gold. The dedication to the sultan at the top of the page is also written in gold, whereas the main text is penned in black ink. As with the longer firmans in *ta'liq*, the lines with the dedication to the sultan rise at the right, and the tails of the final letters in the lines or hemistiches swing out to the left. The hand is smoother and more fluid than that used in other documents, perhaps because of the paper used. The letters are also more clearly written, and many more are pointed. For example, to distinguish *sin* from *shin*, 'Abd al-Hayy often put three dots under *sin*, characteristically written as two dots above a small dagger.

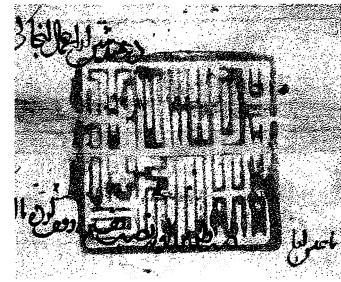


Figure 7.13a

Figure 7.13 (opposite) Twelve-line decree issued by Sadr al-Din Zanjani, vizier to the Ilkhanid ruler Gaykhatu, in Jumada II 692/June 1292.

This decree issued by the Ilkhanid chancery grants tax exemption to a village near Ardabil that had been endowed to a Sufi hospice. The script can be identified as an early form of *ta'liq* because of its many unorthodox ligatures. The red seal impression stamped on the joins between the sheets of paper is written in the Mongolian script known as *phagspa*.



Figure 7.14 *Encomium to the Aqqoyunlu sultan Ya'qub* (r. 1478–90) signed by 'Abd al-Hayy ibn Hafiz Shaykh Muhammad al-Bukhari.

This fine specimen was included in this album because of its precious materials (mauve-tinted paper and gold and black ink) and its superb calligraphy. Because of the increased number of unorthodox ligatures and intricate style, the script is often called *shikasta*, or broken *ta'liq*.

From the fifteenth century, *ta'liq* became the major chancery style used in Iran and adjacent areas in the eastern Islamic lands. Scribes in the Ottoman chancery tried to turn *ta'liq* into a literary script, but this attempt was short-lived (see Chapter 9), and *ta'liq* remained primarily the script for transcribing documents, while *nasta'liq*, the other hanging script, became the literary script *par excellence* for writing Persian, particularly poetry. The name *nasta'liq* is a contraction of the Persian *naskh-i ta'liq*, meaning a hanging or suspended *naskh*. Using dated or datable manuscripts, Elaine Wright meticulously traced its evolution in fourteenth-century Iran and showed how it developed not from combining *naskh* and *ta'liq*, as is commonly thought, but from *naskh* alone.¹⁴⁶ Wright isolated a dozen traits that distinguish *naskh* from *nasta'liq*, including the slant, height, and shape of various letters, notably *kaf*, and their position in relation to the baseline.¹⁴⁷ She tested these characteristics in forty-six published manuscripts, assigning each trait within a particular manuscript a numerical score on a range from one to five. Based on a general consideration of the twelve traits, she then gave each manuscript a final score on a scale of one (pure *naskh*) to nine (pure *nasta'liq*).

In addition to showing the overall progression from *naskh* to *nasta'liq* over the course of the fourteenth century, Wright's method of ranking identified three key periods of change, all of which took place in Shiraz. In the 1330s and 1340s, Shirazi scribes, particularly those transcribing copies of the *Shahnama*, increased the number of piled-up or slanted words, perhaps to add visual interest to the page. A second and more dramatic shift took place between 1355 and 1360, when Shirazi scribes transformed angles into curves and curves into

straight strokes so that the horizontal and vertical axes faded in favor of an oblique one. This shift was visible not only in poetic manuscripts written in columns, but also in prose texts where the pile-up of words could not have been due to the exigencies of the multi-column format. The final period of change began with the first appearance of the fully developed form of *nasta'liq* in a manuscript of the collected works of 'Imad Faqih dated 772/1370 and readily attributable to Shiraz.¹⁴⁸

Wright also found new textual evidence to support the visual evidence she had amassed in her argument for the Shirazi origins of *nasta'liq* script: a document drawn up c. 1430 by the Timurid scribe Ja'far, supervisor of Baysunghur's scriptorium at Herat.¹⁴⁹ Writing about a half century after the events he is describing (and therefore the earliest surviving source to describe the evolution of *nasta'liq*), Ja'far told a rather different story from that recounted by Safavid historians writing a century or two later. According to Ja'far,

It must be known that *nasta'liq* is derived from *naskh*. Some Shirazi [scribes] modified it [*naskh*] by taking out the flattened [letter] *kaf* and the straight bottom part of [the letters] *sin*, *lam*, and *nun*. From other scripts they then brought in a curved *sin* and stretched forms and introduced variations in the thickness of the line. So a new script was created, to be named *nasta'liq*. After a while Tabrizi [scribes] modified what Shirazi [scribes] had created by gradually rendering it thinner and defining its canons, until the time when Khwaja Mir 'Ali Tabrizi brought this script to perfection.¹⁵⁰

Thus, our earliest written source also credits Shirazi scribes with the development of *nasta'liq* and Mir 'Ali Tabrizi with its canonization.

Wright's study of the development of *nasta'liq* is important for several reasons. First, it shows some of the advantages (and the pitfalls) of the quantitative method. To obtain the overall score for each manuscript, Wright could not simply average the twelve individual characteristics, for some traits are interrelated (the hanging or slanted nature of the script, for example, engenders a chain of reactions, including the lack of adherence to a baseline, the sloping of individual letters such as *alif* and *kaf*, and the visual foreshortening of letters in *nasta'liq* due to their burial amidst the heap of other letters) and some characteristics (notably, the stacking and overlapping of letters and words, the combined effect of the traits, and the overall impression of precision and control) were more important. In other words, mathematics alone is not sufficient; some individual judgment is also needed.

Second, her study underscores the importance of choosing a representative sample. The execution of any hand varies depending, among other considerations, on the funding and time that the calligrapher could put into penning the text. Following her training as an

art historian, Wright worked mainly from fine illustrated manuscripts, most of which are poetic texts produced in Shiraz, literary capital of Iran in this period. In his complementary essay published in the same issue of *Manuscripta Orientalia*, however, Francis Richard, who was trained as a linguistic and librarian, showed that texts on history, religion, and mysticism were also written in some version of a hanging script, including some manuscripts produced in Tabriz.¹⁵¹ The picture, therefore, may be slighted more complicated, especially as artists often moved from place to place in this volatile period. The calligrapher Ahmad Shah, for example, was born in Tabriz; designed the inscriptions for the major shrine in Baghdad, the Mirjaniyya Complex founded by the Jalayirid governor in 758/1357; bore the epithet *zarin qalam shirazi* (golden pen of Shiraz); and signed brass candlesticks of a typical Shirazi style.¹⁵² Geographical rubrics are thus as difficult to apply to styles of calligraphy as they are to contemporary styles of painting.¹⁵³

Third, Wright's study points up the effectiveness (and even necessity) of combining visual and written sources. She began with the manuscripts themselves and added corroboration from texts. Such a combined approach is needed, for chroniclers often paint a picture that is not only hard to interpret out of context but sometimes one-sided or distorted, as with the Safavid arrangement of chains of transmission. Such a historical slant also privileges a teleological linearity, whereas, as Wright showed, the development of *nasta'liq* took place in fits and starts.¹⁵⁴ That is not to say that written sources do not have much to contribute to the history of calligraphy. Indeed, Richard pointed out another textual source still to be mined: contemporary literature. Poems like 'Assar Tabrizi's *Mihr va Mushtari* contain numerous references to writing, and unraveling the complex metaphors imbedded in these verses can tell us much about the allegorical role of calligraphy and how contemporary literary society viewed it.¹⁵⁵

Finally, Wright's study shows that the sources themselves do not answer the question of why *nasta'liq* developed at this time. Its development was undoubtedly connected to the use of Persian, which lends itself to a suspended script. It is surely no coincidence that *nasta'liq* was developed for Persian poetry at the same time that chancery clerks developed the other hanging script, *ta'liq*, for court documents. *Nasta'liq* is especially suitable for writing poetry, whose hemistiches encourage the pile-up of letters against the intercolumnar ruling. Only later was it adopted for prose. Wright also connected the development of *nasta'liq* with the change from narrative to lyric poetry that took place at this time. Calligraphers, she suggested, could not help but be affected by the language and emotion of the new genre. One might here draw an analogy between the fluidity of diction in the new *ghazals* (short monorhyming poems often dealing with love) and the fluidity of the new hanging script.¹⁵⁶

The next problem in tracing the evolution of *nasta'liq* is estab-

lishing the identity of the person who canonized it – Mir ‘Ali Tabrizi – for at least two scribes of that name were active in Tabriz at the turn of the fourteenth to the fifteenth century. One was ‘Ali ibn Ilyas al-Bawurchi (the taster). He worked for the Jalayirid sultan Ahmad (r. 1382–1410), for whom he transcribed the well-known manuscript of Khwaju Kirmani’s three *mathnavis* finished in Jumada I 798/March 1396.¹⁵⁷ Penned in elegant *nasta‘liq*, the manuscript was clearly a royal production, originally decorated with ten magnificent paintings, one signed by Junayd, the first unquestionably genuine signature in Persian manuscript painting. Western scholars, long familiar with this manuscript, often assumed that this Mir ‘Ali was the ‘inventor’ of *nasta‘liq*.¹⁵⁸ Working from other calligraphic specimens, Bayani showed, however, that the Mir ‘Ali credited with the invention of *nasta‘liq* had a different genealogy.¹⁵⁹ Mir ‘Ali’s most famous pupil signed a calligraphic specimen in Tehran saying that it was written by Ja‘far in the tradition (*tariq*) of the inventor of the archetype (*wadi‘ al-asl*), ‘Ali ibn Hasan *al-sultani*. Ja‘far’s master, therefore, was someone named ‘Ali ibn Hasan.

The only surviving example of Mir ‘Ali ibn Hasan’s hand (Figure 7.15) is a splendid but incomplete manuscript of Nizami’s *Khusraw and Shirin* in Washington, DC.¹⁶⁰ The text is one of five romantic poems in the *Khamasa* (Quintet) composed in the twelfth century by the master of the genre, Ilyas ibn Yusuf Nizami of Ganja in Azerbaijan.¹⁶¹ This multi-part poem became particularly popular in the fourteenth century: fine illustrated copies were produced, and Amir Khusraw Dihlavi (1253–1325), known as the Parrot of India, composed his own shorter version.¹⁶² The colophon to this fragment with the ill-fated love-story between the Armenian princess Shirin, her royal husband Khusraw Parviz, and his tragic rival Farhad, says that it was transcribed (*harrara*) by ‘Ali ibn Hasan *al-sultani* at the capital (*dar al-saltanat*) Tabriz. The last words in the colophon with the date are lost, but the style of the five fine paintings that are contemporary with the text suggests that the manuscript was copied between 1405 and 1415. This must have been near the end of the calligrapher’s life, for Sultan ‘Ali Mashhadi, whose poem about calligraphy was incorporated in Qadi Ahmad’s treatise, says that Mir ‘Ali, the inventor of *nasta‘liq*, was a contemporary of the poet Kamal Khujandi (d. 1400).¹⁶³

Priscilla Soucek articulated the key elements of the *nasta‘liq* that Mir ‘Ali ibn Hasan used in this manuscript of *Khusraw and Shirin*.¹⁶⁴ His script shows a sense of movement, created by the slightly pitched *alif*, flowing lines, and elongated letters such as *sin* and *kaf*.¹⁶⁵ The tiny bodies of the letters contrast with the long sweeping strokes. Soucek also pointed out the small distinctions between the *nasta‘liq* ‘Ali ibn Ilyas had used in his copy of Khwaju Kirmani’s poems and the one ‘Ali ibn Hasan used less than a generation later in his copy of *Khusraw and Shirin*. The latter’s work has smooth curves for the teeth of *ba*’ and *sin* and more tension created by packing the words



Figure 7.15 Opening page to a copy of Nizami's *Khusraw and Shirin* with twenty-five lines per page transcribed by Mir 'Ali ibn Hasan al-Sultani at Tabriz, c. 1410.

The calligrapher is to be identified as the Mir 'Ali Tabrizi who is credited with the canonization of *nasta'liq* script. He used a fine fluid script for the poetic text, with smooth, swinging curves for the teeth and often stacked words at the end of the verse.

together, writing each one on a distinctive slant, and often stacking up a letter or word at the end of a hemistich.

According to Safavid sources, Mir 'Ali passed his style of *nasta'liq* to his son 'Ubaydallah, whose hand was reputed to be indistinguishable from that of his father.¹⁶⁶ The style of *nasta'liq* codified by Mir 'Ali then passed from the Aqqoyunlu court at Tabriz to the Timurids in Khurasan, as 'Ubaydallah ibn 'Ali taught it to Ja'far, a native of Tabriz who moved to Herat, where he worked for prince Baysunghur, thereby gaining the epithet Baysunghuri.¹⁶⁷ Ja'far was in charge of forty calligraphers in the royal studio there and personally calligraphed many of the finest illustrated manuscripts made for the prince.¹⁶⁸ A unique report (*'arzadasht*) preserved in one of the albums in Istanbul gives a progress report on how these manuscripts were progressing and gives us a glimpse into how this royal book atelier functioned.¹⁶⁹

A text page from the copy of Sa'di's *Gulistan* (Rose-garden) copied at Herat in 830/1426–7 (Figure 7.16) gives a good example of Ja'far's hand.¹⁷⁰ A collection of anecdotes illustrating ethical truths written in short prose passages with verse endings, the text is considered the prerequisite of elegant composition and a classic of Persian literature still used as a primer by schoolchildren from Turkey to India. This fine manuscript, of modest size but lavishly illuminated in gold and ultramarine, is the earliest illustrated copy to survive. Ja'far calligraphed the text in a smooth *nasta'liq* typical of early times, in which the individual graphic units are placed at a 30° angle to the horizontal writing line. *Alif* is small, serifless, and pitched slightly to the right. Connectors and letters, particularly *sin/shin*, are extended with long swooping strokes that widen at the end (Figure 7.16a). Both rhythm and spacing are tightly controlled, and the *thuluth* headings in the text written in gold or blue, here with *bayt* (verse) and elsewhere with *hikayat* (story), *mathnavi* (poem), and *ruba'i* (quatrain), are stretched to echo the elongated forms of the *nasta'liq*. The breaks between poetry and prose and the irregular divisions between verses add a somewhat jumpy quality to the page, enhanced by Ja'far's *nasta'liq* script, which has not yet reached the elegance and fluidity it achieved under his pupils and successors who made it the predominant script for copying poetry, reportedly used by the mid-fifteenth century for three-quarters of everything written there.¹⁷¹

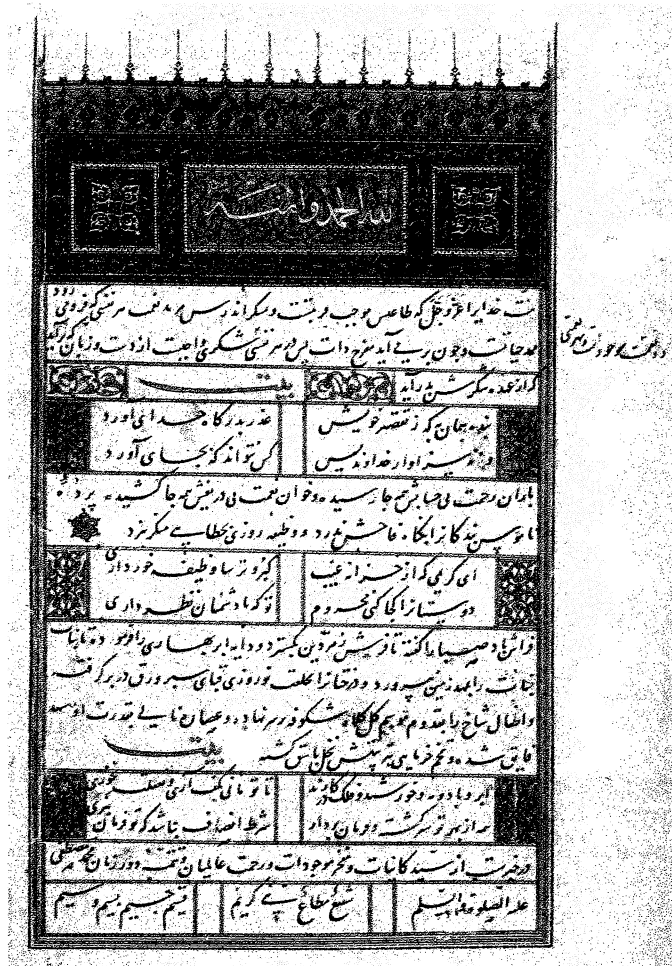
Ja'far trained several students in *nasta'liq*, of whom the most famous was Zahir al-Din Azhar Tabrizi.¹⁷² Signed manuscripts allow us to trace Azhar's career, particularly in Herat, where he worked for several Timurid princes, from Baysunghur to Abu Sa'id.¹⁷³ According to Dust Muhammad, masters of the art of calligraphy judged Azhar's style of *nasta'liq* to be better than that of his teacher,¹⁷⁴ and a manuscript of Nizami's *Haft Paykar* in the Metropolitan Museum of Art, datable to the mid-fifteenth century, attests to its elegance.¹⁷⁵ The words are evenly spaced and slope more dramatically than they did in Ja'far work. The upper stroke of *kaf*, for example, is set at 45° to

Figure 7.16 Opening page from a copy of Sa'di's *Gulistan* with twenty-three lines per page copied by Ja'far Baysunghuri in 830/1426–7.

Though of modest size, the manuscript is of royal quality, with fine calligraphy and exquisite illumination in gold and ultramarine. Ja'far, chief calligrapher in prince Baysunghur's scriptorium, transcribed the text in a fluid *nasta'liq*, juxtaposed to *thuluth* for the headings. The words in his *nasta'liq* are pitched about 30° above the line; the pitch becomes steeper in the work of his successors.

خداوند پیش

Figure 7.16a



the baseline. To balance, the bodies of other letters, particularly *sin* and *kaf*, are lengthened.

Nasta'liq achieved its classical form under Sultan 'Ali Mashhadi, a student of Azhar (or perhaps of one of Azhar's students). Orphaned at an early age, Sultan 'Ali spent most of his long career (c. 1453–1520) in Herat working for the major bibliophiles at the Timurid court, the ruler Sultan Husayn and his boon companion 'Ali Shir Nava'i.¹⁷⁶ In 1514, after Sultan 'Ali had retired to Mashhad, he wrote a verse treatise on calligraphy which Qadi Ahmad incorporated in his history of calligraphers and painters.¹⁷⁷ It contains both practical and autobiographical information and demonstrates the close association between religious discipline and the practice of calligraphy.

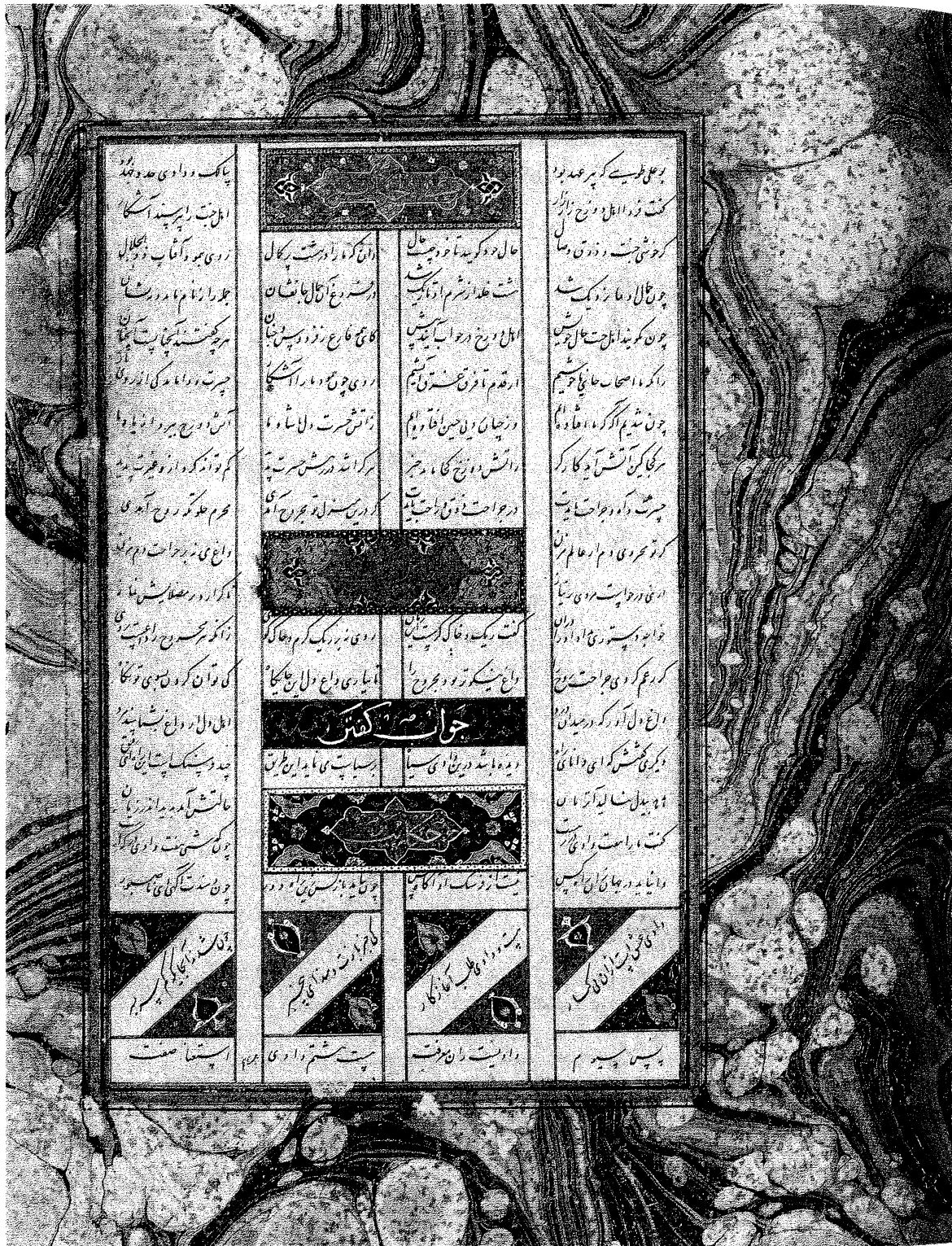
Sultan 'Ali penned some of the finest manuscripts of the late fifteenth century, including a copy of Farid al-Din 'Attar's *Mantiq al-Tayr* (Conference of the Birds) completed on 1 Jumada I 892/25

April 1487.¹⁷⁸ The text, written in 1187 by one of the classic Sufi poets, is an allegory in which thirty birds, symbolizing humankind, search for the Divine through seven valleys only to discover it in themselves. The author and his works became popular in Timurid times, particularly during the reign of Sultan Husayn. His court poet Dawlatshah Samarqandi included 'Attar in his *Tadhkirat al-Shu'ara*, the biography of poets prepared for the prince in 1487, and several luxury copies of the *Mantiq al-Tayr* were made at this time.¹⁷⁹ The manuscript penned by Sultan 'Ali Mashhadi is the finest.

Each page (Figure 7.17) contains twenty-two lines and four columns of the elegant *nasta'liq* developed under the Timurids. *Alif*, written without a hook, is pitched slightly to the right to emphasize the sloping script. Compared to the hand of his predecessor Ja'far (Figure 7.16), Sultan 'Ali Mashhadi's is more spacious and delicate (Figure 7.17a). He shows a mastery of control and modulation, introducing visual rhythms by elongating and emphasizing certain forms, notably the stroke on *kaf* which guides the eye over the page. He also stressed rhymes and other parallels between hemistiches. Thus, the final *-ast* in the hemistiches flanking the title with *hikayat* is raised above the end of the line. Initial *kaf*, which often opens a hemistich, usually projects into the right margin. It occurs five times in the right column and introduces a link between the lines. Initial *cha*' forms a similar pattern. All together, Sultan 'Ali Mashhadi's script demonstrates a fine balance between fluidity and discipline, the same characteristics that he mentioned in his treatise on calligraphy.

The art of *nasta'liq* reached great heights during the reign of Sultan Husayn at Herat. Not content with merely penning *nasta'liq* in ink on paper, artists also developed the technique of the cut-out, both collage and, more rarely, *découpage* (see Chapter 2). The most famous example to survive is the dispersed copy of the ruler's collected poems in Chaghatay Turkish (Figure 2.7). As with Sultan 'Ali's page in Persian from the *Mantiq al-Tayr*, the upper stroke of *kaf* sets the rhythm in the page of Sultan Husayn's love-poetry, but since the letter is more frequent in Turkish (it is used, for example, four times in the first line and six in the second), it lends a stronger beat to the hanging script when used for Turkish.

Examining the page from Sultan 'Ali Mashhadi's copy of the *Mantiq al-Tayr* (Figure 7.17) also shows the close interaction between script and decoration in late Timurid times, when some of the finest illustrated books ever made in the Islamic lands were produced. During copying, the calligrapher left space in the text for illustrations, illuminations, and rulings, which were added later, usually by different specialists. In copying this manuscript, Sultan 'Ali left space for eight, nearly full-page paintings. In order to set out the illustrated pages so that the painting is framed by the specific verses that describe it (and also to alert the painter as to what scene to illustrate), the calligrapher stretched out the preceding text with diagonal boxes, just as Siraj al-Husayni had done in the copy of Yazdi's *Zafarnama*



that he had transcribed at Shiraz in 839/1436 (Figure 7.10). This page, for example, faces the final illustration on folio 49a, showing Shaykh Mihna and the Villager. The text describes Shaykh Mihna's quest for the spiritual way. The specific story begins three-quarters of the way down the page (Figure 7.17a) at the large blue box bearing the cartouche inscribed *hikayat* (story). It recounts how the shaykh approached a pious villager who had light emanating from his head. When the shaykh asked him to explain his ecstatic state, the aged villager replied with advice about the need for patience for those who travel the mystical path. The calligrapher wanted to have a painting showing the shaykh approaching the villager. To do so, he stretched out the text in diagonal boxes, so that the hemistich beginning, 'The shaykh turned to him [the old villager]' falls at the top of the facing page and the space for the painting is framed by couplets containing the villager's advice. The painter, who may have been at something of a loss to illustrate such a metaphysical concept, filled the large space with vignettes of daily life, such as weighing watermelons.

Looking carefully at this page also shows that the decorated headings were added afterwards, for they run over the calligraphy. The heading with *hikayat* (Figure 7.17a), for example, covers up most of the *madda* on the *alif* in *agah*. Similarly, when painting the red heading with *al-maqalat* (discourses) in the middle of the page, the illuminator had to leave a small gap at the lower right corner of the frame to allow space for the final *ya*' of *kuyi*. The eight paintings were also done after copying. The last four were done soon after Sultan 'Ali had finished transcribing the text in 892/1487. The first one showing the beggar who professed his love for a prince (fol. 28a) is even dated to the same year. Despite the quality of the calligraphy, this splendid copy of the *Mantiq al-Tayr* was apparently left unfinished, and the first four paintings in the manuscript were added more than a century later in Safavid times.¹⁸⁰ At the same time Zayn al-'Abidin al-Tabrizi added an illuminated frontispiece, the text pages were set in margins made from marbled and gold-flecked paper, and the folios were bound in a tooled and gilded cover. This work was carried out under Shah 'Abbas, who recognized the astounding quality of the calligraphy and endowed the manuscript to the Safavid dynastic shrine at Ardabil. To do so, the pages with the colophon and illustrations were stamped with the library seal of Shah 'Abbas and the word *waqf* (religious donation) scrawled across them.

Such a long gestation for a manuscript was not unusual in these troubled times. According to the long and detailed colophon (Figure 7.18), the same thing happened to another splendid copy of Nizami's *Khamasa* now in the Topkapı Library.¹⁸¹ The Timurid prince Abu'l-Qasim Babur (r. 1447–57) commissioned Ja'far's student Azhar to transcribe the text, but the manuscript was still unfinished at the prince's death. After the Qaraqoyunlu ruler Jahanshah sacked Herat a year later, the manuscript passed to Jahanshah's son Pir Budaq. It then went to the Aqqoyunlu ruler Khalil (r. 1478), who commissioned



Figure 7.17a

Figure 7.17 (opposite) Page from a manuscript of Farid al-Din 'Attar's *Mantiq al-Tayr* with twenty-two lines per page transcribed by Sultan 'Ali Mashhadi at Herat and finished on 1 Jumada I 892/25 April 1487.

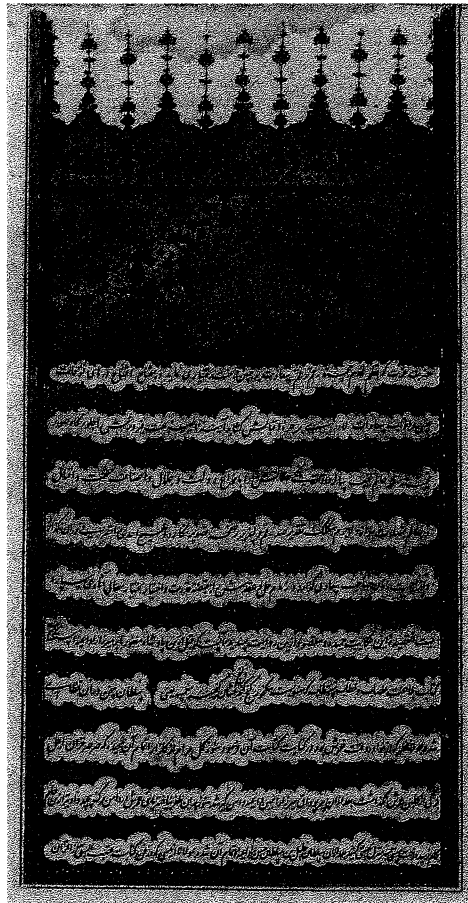
This luxurious manuscript was made at the court of the Timurid ruler Sultan-Husayn Mirza, but refurbished at the beginning of the seventeenth century under the Safavid shah 'Abbas, who endowed it to the dynastic shrine at Ardabil. The calligraphy by Sultan 'Ali Mashhadi epitomizes the flowing style of *nasta'liq* that developed in eastern Iran in Timurid times.

Figure 7.18 Colophon added to a copy of Nizami's *Khamsa* begun by Azhar for the Timurid prince Abu'l-Qasim Babur in Herat and finished by 'Abd al-Rahim al-Khwarazmi, known as Anisi, for the Aqqoyunlu prince Ya'qub at Tabriz in 886/1481.

In the early sixteenth century this colophon was added to explain the long and complicated history of this peripatetic manuscript that was penned by two of the most famous practitioners of *nasta'liq* in two different cities (Herat and Tabriz) and illustrated by two masters of the genre (Shaykhi and Darvish Muhammad) over the course of some four decades. The scribe who added it used a *nasta'liq* similar to that used for the text, but set in cloud bands.



Figure 7.18a



the calligrapher 'Abd al-Rahim Khwarazmi, known as Anisi, to finish copying the text and two artists, Shaykhi and Darvish Muhammad, to illustrate it. Still unfinished at Khalil's death, the manuscript passed to his brother Ya'qub. He too died before the book was completed, and it finally passed to Isma'il I (r. 1501–24), founder of the Safavid dynasty, under whose patronage it was finally finished.

Anisi, the calligrapher who finished this peripatetic manuscript of Nizami's *Khamsa*, came from a renowned family of calligraphers.¹⁸² Although their *nisba* suggests that they came from Khwarazm, they worked mainly for various Turkoman rulers in Western Iran and Iraq. Anisi's father 'Abd al-Rahman al-Khwarazmi, who worked in Shiraz and then in Baghdad under the Qaraqoyunlu ruler Pir Budaq, developed a distinctive style of *nasta'liq* in which the exaggerated strokes vary in thickness, perhaps because he trimmed his nib differently than his colleagues.¹⁸³ The idiosyncratic style was continued in the work of his two sons, who both worked at the Aqqoyunlu court.¹⁸⁴ One hundred forty specimens of their work are preserved in two albums in Istanbul (H2153 and H2160) thought to have been prepared

for the Aqqoyunlu sultan Ya'qub.¹⁸⁵ 'Abd al-Rahim was particularly close to the sultan and adopted the pen name Anisi (friend), which he used as an epithet along with *sultani* (royal) and *ya'qubi* (belonging to [sultan] Ya'qub). Anisi's swooping script with its variation between thick and thin, returning *ya'*, and long tail on *mim* resembles that of his father. Specimens of 'Abd al-Karim's *nasta'liq* hand show many of the same features.¹⁸⁶

In the early sixteenth century this informative colophon was added to the peripatetic copy of the *Khamṣa*. It contains both written and visual puns. For example, the name of the author, Nizami of Ganja, is given laudily as treasurer of the treasure of Ganja, scatterer of treasures from the treasure-house of the *Khamṣa* (*ganjvar-i ganj-i ganja wa ganjflashan-i ganjina-yi khamṣa*), that is, the sultan of poets, Nizami. The calligrapher underscored the phrasing by stacking up the flowery titles in the middle of fourth line from the bottom, a pile highlighted by the puffy cloud-band enclosing it (Figure 7.18a). The poet's actual name, Nizami of Ganja, is set off in its own cloud at the end of the line, with a long returning tail of *ya'* that acts like a pointer directing the reader's eye to the main subject of the line, the author Nizami, sultan of poets.

It is no wonder that finely calligraphed manuscripts like this one were preserved and embellished by succeeding generations, for good calligraphy was expensive. Surviving documents, ranging from letters to chronicles, tell us incidentally about the economics of calligraphy in this period. Calligraphers working at court ateliers were expected to pen a daily quota of verses. An average load ranged from fifty to a hundred verses. According to Muhammad Haydar Dughlat, Sultan 'Alī Mashhādī produced fifty, writing thirty verses for Mir 'Alī Shir and another twenty for Sultan Husayn.¹⁸⁷ Shaykh Mahmud, director of the Qaraqoyunlu studio at Shiraz for Pir Budaq, complained that he and his students could barely meet their quota of eighty verses of narrative poetry (*mathnaviyat*) and fifty verses of lyric poetry (*ghazaliyat*).¹⁸⁸ Sometimes higher totals were expected. According to Qadī Ahmad, the Timurid prince Iskandar Sultan expected his court calligrapher Mawlana Ma'ruf to produce five hundred verses a day, and on a bet Simi Nishapuri was reported to have even composed and written two thousand verses, which, the Safavid chronicler adds, was beyond the capacity of any poet or calligrapher.¹⁸⁹ According to one document, about one-third the cost of a luxury *Shahnama* manuscript was the fee due the calligrapher.¹⁹⁰

Colophons in surviving manuscripts bear out these statistics and also show that calligraphers may have worked on several projects simultaneously. One of the best documented is another copy of Nizami's *Khamṣa* in the John Library penned in a good *nasta'liq* script with illustrations and illumination typical of mid-fifteenth-century Shiraz.¹⁹¹ The manuscript contains five colophons, all dated in sequential order, between 5 Sha'ban 848 and Safar 849 (17 November 1444 to May 1445). The anonymous calligrapher thus penned the

29,000 verses over a period of seven months, for an average of some 138 verses a day. He did not, however, work at a steady rate on each poem. It took him about a month to pen three of the poems (*Khusraw and Shirin*, *Layla and Majnun*, and *Iskandarnama*), but three months to finish the *Sharafnama*. Towards the end of the project, he must have taken up other work, perhaps while painters and illuminators were busy completing the decoration of the first poems.

Like *ta'liq*, which was taken by Aqqoyunlu scribes from Western Iran to Istanbul, where Ottoman scribes transformed it into *divani*, so too in the late fifteenth century *nasta'liq* was taken from Western Iran to the Ottoman capital, where it developed as a minor style, confusingly known as *ta'liq* (see Chapter 11). *Nasta'liq* was also exported to the Indian subcontinent, where it became the model for a local variety which developed an ever thicker horizontal stroke and became the standard script for writing Urdu (see Chapter 9). Nevertheless the style of *nasta'liq* penned by such Timurid masters as Sultan 'Ali remained the epitome of the style, assiduously collected and treasured by later connoisseurs and emulated by his successors for centuries to come.

Notes

1. These historical terms are taken once again from Hodgson's framework for Islamic history, his later middle period discussed in Book 4: 'Crisis and Renewal: The Age of Mongol Prestige.' Marshall G. S. Hodgson, *The Venture of Islam* (Chicago, 1974), 2:369–574. See also the recent reappraisal of the Mongols in Iran by David Morgan, 'The Mongols in Iran: A Reappraisal,' *Iran* 42 (2004): 131–6.
2. Confusingly, the same word *qit'a* is used for cut-out, meaning coupage or *découpage*, a technique of cutting out letters in one material and pasting them on another used for calligraphic specimens (Figure 2.6), whose *nasta'liq* calligraphy is discussed below.
3. On the construction of an art history in this period and some of the problems in accepting it as a straightforward recitation of names and dates, see David J. Roxburgh, *Prefacing the Image: The Writing of Art History in Sixteenth-Century Iran*, Studies and Sources in Islamic Art and Architecture, Supplements to Muqarnas (Leiden, 2001).
4. By the sixteenth century, for example, the tradition had been established that the style of Six Pens passed from the master Yaqut to six followers, three in Iraq/north-western Iran and three in southern/eastern Iran. Other followers like Ibn al-Wahid in Cairo (see Chapter 8 and Figure 8.13) were not even mentioned. These two traditions were said to have passed to a second generation, exemplified by 'Abdallah Sayrafi, who worked in Tabriz, and Pir Yahya al-Sufi, who worked in Shiraz. The same geographic division holds true for the hanging scripts. The Timurids, for example, were said to have favored a more 'luscious' *ta'liq*, the Aqqoyunlu a more sober one. Ja'far, the master of *nasta'liq* at the court of Baysunghur, is described in a line that goes back to 'Abdallah Sayrafi, while his contemporary and rival Shams-i Baysunghuri belonged to a line going back to Pir Yahya al-Sufi. The split continued to the end of the century, with Ja'far's disciple, Sultan 'Ali Mashhadi, the master at Herat, juxtaposed to Anisi, who worked for the Aqqoyunlu.

5. It pervades, for example, the study of Safavid painting. Since the masterful work of Martin B. Dickson and Stuart Cary Welch, *The Houghton Shahnama* (Cambridge, MA, 1982), scholars have traditionally viewed Safavid painting as the mingling of a more refined and cerebral Timurid style with a more exuberant and lush Turkoman style. The division reflects the one that Safavid chroniclers make about calligraphy, but reverses the categories (the Turkomans, who were said to have had more 'sober' calligraphy, are said to have had more 'luscious' painting). Perhaps it is time to rethink the unquestioned assumptions of this theoretical framework.

Something of the same situation exists in China, where a vast theoretical literature on calligraphy and its origins developed in the post-Han period. Michael Nyland, 'Calligraphy, the Sacred Text and Test of Culture,' in *Character and Context in Chinese Calligraphy*, ed. Cary L. Liu, Dora C. Y. Ching, and Judith G. Smith (Princeton, 1999), 17–77, has tried to go beyond the usual stark dichotomies of content vs. form, religious vs. secular, and the like, and set the development of Chinese calligraphy in historical context, arguing that the development of Chinese calligraphy as the premier art form in China was due to the break-up of the Han empire and the rejection of the old canons.

6. Similarly, Eugene Y. Wang, 'The Taming of the Shrew: Wang Hsi-Chih (303–361) and Calligraphic Gentrification in the Seventh Century,' in *Character and Context in Chinese Calligraphy*, ed. Cary L. Liu, Dora C. Y. Ching, and Judith G. Smith (Princeton, 1999), 132–73, has recently shown that looking at a letter that is not part of the traditional canon of work by the fourth-century Chinese master Wang Xizhi shows a more anguished personality with a wilder style than the persona of refined and gentlemanly self-control whose graceful style was deliberately created by Tang historians three centuries later.
7. For painting, see the chapter entitled 'Fulfillment in Baghdad' in Richard Ettinghausen, *Arab Painting* (Geneva: Skira, 1962), 97–104, as well as Marianna Shreve Simpson, 'The Role of Baghdad in the Formation of Persian Painting,' in *Art et société dans le monde iranien*, ed. Chahryar Adle (Paris, 1982), 91–116.
8. Colophons show that many fine manuscripts were produced there. They include luxury copies of the Koran, such as a very large (47 × 34 cm) single-volume manuscript transcribed in 710/1310–11 by Sulayman ibn Muhammad al-Jaylani at the Mustansiyyira Madrasa (TIEM 238; David James, *Qur'āns of the Mamlūks* [London, 1988], no. 43).

Many illustrated manuscripts were also produced there. In Ramadan 698/June–July 1299 al-Murtada ibn Abi Tahir ibn Ahmad al-Kashi completed a medium-sized copy of Sa'd al-Din Varavini's *Marzubannama* in the eastern district of Baghdad (Istanbul, Archeological Museum, ms. 216; Simpson, 'The Role of Baghdad'). A copy of Juvayni's history of the world-conqueror, *Tarikh-i jahan-gusha*, completed by Rashid Khwafi on 4 Dhu'l-Hijja 689/8 December 1290 (BN, ms. supp. pers. 205) can be assigned to the city as well; see Francis Richard, *Splendeurs persanes: manuscrits du XIIe au XVIIe siècle* (Paris, 1997), no. 7. Based on the style of the illustrations in these manuscripts, Marianna Shreve Simpson, *The Illustration of an Epic: The Earliest Shahnama Manuscripts* (New York and London, 1979), has suggested that the multiple small copies of the *Shahnama* were also produced in the city around the turn of the century, although other scholars have proposed different locales and dates; see Sheila S. Blair and Jonathan M. Bloom,

The Art and Architecture of Islam, 1250–1800, The Pelican History of Art (London and New Haven, 1994), 34–5.

9. Sheila S. Blair, 'Yāqūt and his Followers,' *Manuscripta Orientalia* 9, no. 3 (September 2003): 39–47.
10. The incident about Yaqut's residence in Baghdad during the Mongol invasion became something of a cliché. Illustrations to Qadi Ahmad's treatise on calligraphy often show Yaqut hiding in a minaret and continuing to write while the Mongols besieged the city; see Qāḍī Aḥmad, *Calligraphers and Painters: A Treatise by Qāḍī Aḥmad, Son of Mīr-Munshī* (Circa AH 1015/AD 1606), trans. V. Minorsky, Occasional Papers (Washington, DC, 1959), pls. 2 and 3.
11. These dates are borne out by the latest surviving specimen of Yaqut's calligraphy (TKS H2160, fol. 82a), which is dated 695/1295–6.
12. TKS H2154, fol. 11b; Wheeler M. Thackston, *Album Prefaces and Other Documents on the History of Calligraphers and Painters*, Studies and Sources in Islamic Art and Architecture, Supplements to Muqarnas (Leiden, 2001), 7.
13. Qadi Ahmad (*Gulistān-i hunar*, ed. Aḥmad Suhaylī-Khānsārī [Tehran, 1352/1974], 25; *Calligraphers and Painters*, 58) quotes a verse by Yaqut mentioning all the elements of writing:

*usul wa tarkib, kurras wa nisbat
su'ud wa tashmir, nuzul wa irsal*

The verse is metaphorical and implies the reader's prior knowledge. These terms were not entirely clear to all readers, and so in a prose treatise on the principles and rules of writing the Six Pens composed in 955/1586–7 (Moscow, Institute of Oriental Studies B551), Fathallah ibn Ahmad ibn Mahmud added a whole subdivision to explain the verse. Minorsky, in his translation of Qadi Ahmad (n. 145), incorporated Fathallah's comments, translating the line thus:

The fundamentals (*usul*), the ligatures (*tarkib*), the support **kurras* (?) and interrelation (*nisbat*)
The upstroke (*su'ud*) and *tashmir* ('renvoi'), the downstroke (*nuzul*) and the flourish (*irsal*).

Modern Persian experts on calligraphy, such as Ḥabīballāh Fażā'ilī, *Atlas-i khatt: taḥqīq dar khattūt-i islāmī* (Tehran, 1391/1971); Ḥabīballāh Fażā'ilī, *Ta'lim-i khatt*, 7th edn (Tehran, 1374/1995–6) and Ghulam-Husayn Yusofi (*Encyclopedia Iranica*, ed. Ehsan Yarshater [London and New York, 1985], 'Calligraphy') explain and translate the terms somewhat differently.

The first line refers to the four basic principles of calligraphy already cited by Ibn Muqla. The first term (*usul*) means fundamentals or principles. The phrase *usul al-fikh* refers to the fundamental principles of jurisprudence, and similarly *usul al-khatt* were the fundamentals of calligraphy. Yusofi described the first of Ibn Muqla's four basic principles as respect for the elements (*usul*), by which he meant giving all the letters of the alphabet their proper degree of boldness or faintness and proper shape.

The second term *tarkib* is generally taken to mean arrangement or composition and refers not only to the arrangement of letters, but also to the composition of words, sentences, and lines to produce a pleasing layout. Minorsky, following Fathallah, translated the terms as ligatures, as with *alif* which has no ligature (*tarkib*) to the following letter, but the idea of composition seems to fit better here.

The term *kurra*s, the plural of *kursi*, means seats or couches and refers to the seating or positioning of the letters. Like *tarkib*, the term *kursi* can be extended to mean the placement of words in a line or hemistich in relation to each other and to the baseline. In almost styles there are at least three seats: the top or head of the letter (*ra*'s *al-khatt*), the middle (*wasat*), and the tail or bottom (*dhayl al-khatt*). Many later calligraphers, however, divide the first and second seats into two parts, making a total of five seats. Thus, the head can refer to the top of tall letters such as *alif*, *kaf* and *lam* as well as to the top of *dal*, *ra*', *sad*, *ta*', *'ayn*, *fa*', *qaf*, *mim*, *ha*', and *waw*. The middle position is the baseline. On the one hand, it corresponds to the bottom of tall letters such as *alif* and *lam*; the bowl of *ba*' and its sisters, including *kaf*; and the beginning of the tail of *jim* and *'ayn*. On the other hand, the middle position can also refer to the bottom of *dal*, *ra*' and final *sin*, *sad*, *qaf*, *nun* and *ya*'. The tail refers to the bottom of final *jim*, *'ayn*, and the like. In his treatise Fathallah represented these five seats in the guise of a five-line staff on which separate characters are disposed, and the rulings in the illuminated heading on a page from a Koran manuscript calligraphed by Yaqut (Figure 7.1) shows such rulings.

The fourth term *nisba*, translated by Minorsky as interrelation but rendered better by Yusofi as proportion, refers in the calligraphic sense to the proportional relationship among the parts of the letter but also between the letter and the surrounding space. The noun *nisba* is related to the adjective *mansub* (well proportioned), used by many writers on calligraphy, including the twelfth-century Saljuq writer Ravandi (*Rāḥat al-ṣudūr wa āyat al-surūr*, ed. Muhammad Iqbal [Cambridge, 1921], 441) and the fourteenth-century Mamluk chronicler al-Qalqashandi, and often applied to Ibn Muqla's regularization of the proportioned script (*al-khatt al-mansub*).

The second line attributed to Yaqut contains four other terms about the elements of calligraphy. They are arranged in two sets of opposites, a literary artifice that tends to work against today's preoccupation with precision and clarity. The terms *su'ud* and *nuzul* convey the idea of ascent and descent. According to Fathallah, they refer to the strokes of the pen upwards and downwards, and Minorsky translated them as upstroke and downstroke. Yusofi defined the terms as heightening and lowering and divided each into two parts, also opposites. According to him, real (*haqiqi*) heightening means the extension of final *alif*, medial *lam*, and final *kaf*, whereas unreal (*majazi*) heightening refers to the raising of the end of the letter when making a round stroke, as in the upstroke added to the tails of letters such as *waw* or *mim* in *thuluth*. Real lowering applies to the shortening of the stroke in detached *alif*, *lam*, and *kaf*, in initial *lam* and *kaf*, and in the tail of *mim*, whereas unreal lowering refers to lowering the beginning of semi-circles and some elongations and the crossbars of *kaf*.

Similarly, the final two terms, *tashmir* and *irsal* can be seen as opposites. According to Fathallah, *tashmir*, or *shamra*, means literally 'tucking up the garment' and is used to describe the rounding of the tail at the end of a letter. It contrasts with *irsal*, literally meaning letting-off or release and referring to the release in pressure on the pen at the end of a stroke. This allows the pen to move freely when finishing off certain letters, as, for example, in flattening *ra*', *waw*, and final *mim* or elongating final *ta*' and *nun*. Minorsky translated the term *irsal* as flourish, but his translation coincides better with the way Mamluk authors used *irsal* as a synonym for *tarwis*, the hook at the beginning

or end of a letter. Here, the term is clearly juxtaposed to *tashmir* and refers to flattening or opening up the end of the letter.

Clearly, these terms could be used at different times for different effects. They are metaphors created to express the inexpressible.

14. The modern Iranian scholar and expert on calligraphy, Mahdī Bayānī, *Aḥvāl wa āthār-i khushnivīsān: nasta'liq nivīsān*, 2nd edn (Tehran, 1363/1985), 1227–32, enumerated twenty-seven examples of Yaqut's work, compiled mainly from Iranian and Turkish collections. Others are in Western collections and are slowly being brought to public attention. One piece in the Art and History Trust Collection, for example, was recently published by Abolala Soudavar, *Art of the Persian Courts: Selections from the Art and History Trust Collection* (New York, 1992), no. 169. This collection is on loan to the Freer and Sackler Galleries in Washington, DC, which also has a collection of verses by the pre-Islamic poet al-Hadira signed by Yaqut (37.28); see David J. Roxburgh, '“Our Works Point to Us”: Album Making, Collecting, and Art (1427–1565) Under the Timurids and Safavids' (Ph.D. diss., University of Pennsylvania, 1996), fig. 20.
15. D. S. Rice, *The Unique Ibn al-Bawwāb Manuscript in the Chester Beatty Library* (Dublin, 1955); Blair, 'Yaqut and his Followers'.
16. David James made a stab at distinguishing Koran codices in Yaqut's hand from fifteenth-century copies in a short essay, 'The Problem of Yaqut al-Musta'simi,' *The Master Scribes: Qur'ans of the 10th to the 14th Centuries AD*, ed. Julian Raby, The Nasser D. Khalili Collection of Islamic Art (London, 1992), 58–9. His attribution of TKS EH 74, a manuscript dated 693/1294 (Martin Lings, *The Quranic Art of Calligraphy and Illumination* [London, 1976], pls. 26–7), as a fifteenth-century copy makes sense, for the script has particularly long, sweeping tails that are not found in other *naskh* manuscripts associated with Yaqut, but are characteristic of fifteenth-century work (see below, p. 264 and Figure 7.10).

Scholars working on Western manuscripts have devised other methods as well. The Codex Vaticanus, one of three early codices of the Bible, for example, is ascribed to two hands. Trained in the same scriptorium, their letter forms are virtually indistinguishable, but their work is recognizable by the patterns of the decorative tailpiece, or coronis, that they drew at the end of each book of the Bible. Once identified by their art, it is then possible to distinguish individual methods of filling the line and punctuation. The same methodology can be applied to the Codex Sinaiticus to distinguish four hands. See Thomas S. Pattie, 'The Creation of the Great Codices,' in *The Bible as Book: The Manuscript Tradition*, ed. John L. Sharpe III and Kimberly van Kampen (London, 1998), 61–72.

17. One of the Persian manuscripts in Yaqut's hands is a copy of Sa'di's *Gulistan* dated at the end of Ramadan 668/May 1270 in the Gulistan Library, Tehran; illustrated in *Elr*, 'Calligraphy,' pl. 39. According to the article, Badri Atabay prepared a facsimile of this manuscript, published in Tehran in 1346/1967, but that work was unavailable to me. Later copies of Yaqut's work, such as a manuscript of 'Abd al-'Aziz Kashi's *Rawzat al-nazir wa nuzhat al-khatir* (Paris, BN, ms. or. arabe 3366; Richard, *Splendeurs*, no. 31), also show that Yaqut knew both languages; see Blair, 'Yaqut and his Followers.'
18. *Gulistan-i Hunar*, 21–3; *Calligraphers and Painters*, 57–60.
19. Colophons in larger manuscripts by Yaqut's followers indicate that it took a month and a half to pen a *juz*; see below, p. 253.

20. Rice, *Ibn al-Bawwab*, 5.
21. Four parts of the medium-sized manuscript (24 × 17 cm) with 5 lines of *muhaqqaq* script per page and the date 681/1282–3 have survived in Istanbul (TKS EH226 and EH227), Dublin (CBL 1452), and London (Khalili QUR29). See James, *Master Scribes*, no. 11.
22. Koran manuscripts signed by Yaqut in *naskh* include one in the shrine library at Mashhad (no. 108) with a colophon whose date of Rajab 604/January–February 1208 seems most improbable, although the manuscript has a long endowment by the Qajar ruler Fath ‘Ali Shah (Aḥmad Gulchīn-i Ma‘ānī, *Rāhnāmā-yi ganjīna-yi qur’ān* [Mashhad, 1347], no. 44, an entry that includes a list of fifteen other Koran manuscripts by Yaqut). Two manuscripts in the Topkapı Library (EH 74 and 76 dated 669/1270–1 and 693/1293–4) are illustrated in color in Lings, *Quranic Art*, pls. 24–7, though the former may be a fifteenth-century copy (see above, note 16). Another dated 690/1291 in Istanbul University Library is illustrated in M. Uğur Derman, *The Art of Calligraphy in the Islamic Heritage*, trans. Mohamed Zakariya and Mohamed Asfour (Istanbul, 1998), no. 23. The best published manuscript by Yaqut is a Koran codex in *naskh* (BN, ms. arabe 6716) dated Muharram 688/February 1289, for which see Martin Lings and Yasin Safadi, *The Qur’ān* (London, 1976), no. 59; François Déroche, *Les Manuscrits du coran, du Maghrib à l’Insulinde*, Bibliothèque Nationale, Département des Manuscrits, Catalogue des Manuscrits Arabes (Paris, 1985), no. 523; *Splendeur et majesté: Corans de la Bibliothèque Nationale* (Paris, 1987), no. 29.
A copy in the Shrine library at Mashhad (no. 120), dated 686/1287–8 is done in *rayhan*; Gulchīn-i Ma‘ānī, *Rahnama*, no. 46; Lings, *Quranic Art*, no. 28. Another dated 685/1286 in Istanbul (TIEM no. 507) is illustrated in Derman, *Art of Calligraphy*, nos. 25–6.
23. No surviving Koran manuscript by Yaqut bears an indication of the person who commissioned or first owned it. To judge from the large number, the small size, and the single-volume format, we can suggest that they were made for a broad audience of private connoisseurs, but such a supposition needs confirmation.
24. Lings, *Quranic Art*, no. 23; Lings and Safadi, *The Qur’an*, no. 57; Gulchīnī az qur’ānhā-yi khaṭṭī-yi mūza-yi dawrān-i islāmī [*A Selection of Koran Manuscripts in the Museum of the Islamic Eras*] (Tehran, 1375/1997), 51.
25. The pages in the copy in Mashhad in *rayhan* (no. 120) also measure 35 × 25 cm, whereas those in the dispersed multi-volume manuscript are half that size (25 × 16 cm). The pages in the Paris manuscript are smaller, measuring 19 × 15 cm.
26. Even an odd number is not standard, for the manuscript in Paris has sixteen lines per page. The dispersed copy in large *muhaqqaq* script has, correspondingly, fewer lines to the page (five) and therefore required much more paper: each of the thirty parts has fifty-eight folios (making a total of 1,740 folios).
27. This V or hook was used since the tenth century for various letters, including *sin*, *sad*, and *dal*, but it became standard for *ra*’ and *sin*. From the eighteenth century, it was often sprinkled on the page as a space filler. See Derman, *Art of Calligraphy*, nos. 8–11.
28. Y. H. Safadi, *Islamic Calligraphy* (Boulder, CO, 1978), 20, says that *rayhan* was written with a pen half as wide as the one used for *muhaqqaq*. He cites no sources, but such a calculation could be made by measuring extant examples. According to Faza’ili, the renowned

- expert on Iranian calligraphy, *muhaqqaq* and *rayhan* have similarly shaped letters but different proportions: *alif* is eight dots high in *muhaqqaq*, but only five dots high in *rayhan*. See Fazā'ilī, *Ta'lim-i khatt*, 312–33, also reproduced as fig. 38 in Yosufi's article on 'Calligraphy' in *Elr*.
29. Ruba'i, no 48, translated by Annemarie Schimmel, 'The Book of Life-Metaphors Connected with the Book in Islamic Literatures,' in *The Book in the Islamic World: The Written Word and Communication in the Middle East*, ed. George N. Atiyeh (Albany, 1995), 72. The image must refer to a colored page, in which the ground was pink and the writing dark green. The image calls to mind the cut-out gardens known from later Ottoman albums (see Chapter 11), in which case the script must have been done in cut-out.
 30. *Gulistan-i Hunar*, 19; *Calligraphers and Painters*, 57–8.
 31. Vlad Atanasiu, 'Hypercalligraphie: le phénomène calligraphique à l'époque du sultanat Mamluk' (Paris, 2003), 100–5, was one of the first to discuss these differences in the serifs used by Yaqut. For a general survey of the serif in Arabic scripts, see Adam Gacek, 'The Head-Serif (*Tarwīs*) and the Typology of Arabic Script: Preliminary Observations,' *Manuscripta Orientalia* 9, no. 3 (September 2003): 27–33.
 32. These unauthorized connections can be exaggerated. In the word *wali*, for example, the final *ya*' can be written in the assimilated (*mudgham*) form when it precedes a word beginning the definite article *al-* and the *alif* connected to *lam*. See Yaqut's calligraphic specimen in large (*jali*) *thuluth* illustrated and discussed in Derman, *Art of Calligraphy*, no. 24.
 33. This feature happens regularly in the gold headings in the Paris manuscript, in which the heads of letters like *jim*, *sad*, and *ta*' are filled with black.
 34. See, for example, the page from the Tehran manuscript illustrated in Lings, *Quranic Art*, pl. 23. A page from a similar manuscript in Istanbul dated 685/1286–7 (TIEM 607) shows the same exploitation of the margin, with the last letter of the final word in the line written in the margin, illustrated in Ayman Fu'ad Sayyid, *al-Kitāb al-'arabiyya al-makhtūt wa 'ilm al-makhtūtāt* (Cairo: Al-Dār al-Miṣriyya al-Lubnāniyya, 1997), pl. 11; Derman, *Art of Calligraphy*, no. 26.
 35. Ibn al-Bawwab made even bigger mistakes. In one place (fol. 40a) where he had repeated several words from the bottom of the recto at the top of the verso, he covered the redundant lines with an opaque ornament. In another place (fol. 137b) where he had omitted a verse, he added the text in the margin, surrounding it with a *tabula ansata*. To show the reader where to insert the missing words, he replaced a ten marker in the text with a rosette. These corrections were done in the same inks, pigments, and style as the text itself, so, as Rice argued, they must have been the work of Ibn al-Bawwab himself.
 36. It is likely, though not yet proven, that another person added the illumination. Yaqut is not known to have been an illuminator, and the illumination differs in the various manuscripts in his hand, suggesting the work of various individuals. Nevertheless, we still need a detailed examination of pigments and inks used in manuscripts by Yaqut, of the type that Rice did for the Ibn al-Bawwab manuscript in Dublin.
 37. These rosettes might also be a means of distinguishing Koran codices by Yaqut from later copies. The rosettes in EH 74, judged to be a later copy on the basis of its script, are sometimes filled with floral designs and *abjad* lettering.
 38. Istanbul, TKS, H2310; see Roxburgh, 'Our Works Point to Us,' Chapter

- 1, esp. pp. 31–6; Derman, *Art of Calligraphy*, no. 27; David J. Roxburgh, '“Catalogue of Scripts by the Seven Masters,” H2310: A Timurid Album at the Ottoman Court,' in *Art Turc, Turkish Art: 10th International Congress of Turkish Art, Geneva 17–23 September 1995* (Geneva, 1999), 587–97.
39. Illustrated in Lings and Safadi, *The Qur'an*, 47. The gold and floral illumination on the last pages of a Koran manuscript in the Reza Abbasi Museum in Tehran (no. 573), with a colophon signed by Yaqut at Madinat al-Salam (Baghdad) in 690/1291, was also added in the Safavid period, perhaps by Muhammad Muhsin, whose seal appears on the manuscript.
 40. Esin Atıl, *The Age of Sultan Süleyman the Magnificent* (Washington, DC, 1987), no. 13; Zeren Tanındı, 'The Manuscripts Bestowed as Pious Endowments by Rüstem Pasha, the Grand Vizier of Süleyman the Magnificent,' in *Soliman le Magnifique et son temps, actes du colloque de Paris*, ed. Gilles Veinstein (Paris, 1990), 265–78.
 41. Yaqut's manuscripts were also treasured by the Qajars. In addition to the Mashhad manuscript (see above, note 22), the Paris manuscript belonged to several Qajar princes, as shown by various notes on folio 1a. One dated Ramadan 1245/March 1830 acknowledges that the Qajar prince Farhad Mirza received the manuscript as a pious donation from his father 'Abbas Mirza, son of the Qajar ruler Fath 'Ali Shah. Another note dated 7 Ramadan 1302/20 June 1885 commemorates Farhad's gift of the manuscript to his son 'Abd al-'Ali Ihtisham al-Mulk, and a contemporary note registers the pious donation.
 42. James, *Qur'ans of the Mamluks*, no. 39. James referred to the manuscript as the anonymous Baghdad Koran because the certificate of commissioning is missing.
 43. For a short biography and partial list of his works, see Bayānī, *Ahwal wa athar-i khushnivisan*, 1024–6. Ahmad al-Suhrawardi was one of three people later singled out as the main followers of Yaqut in Iraq. The other two were Arghun al-Kamili and Nasrallah Tabib. Arghun, who was active over the first half of the fourteenth century, is best known for Koran manuscripts in *rayhan* script (James, *Qur'ans of the Mamluks*, nos. 49, 53, 62, and 65). Nasrallah Tabib, by contrast, is known only from specimens in albums in Istanbul (e.g., TKS H2161, fol. 24a, dated 729/1328–9 and B411, fol. 106b dated Dhu'l-Qa'da 735/June–July 1335). See Blair, 'Yaqut and his Followers.'
 44. Ahmad al-Suhrawardi's most complete genealogy – Ahmad ibn Yahya ibn Muhammad ibn 'Umar ibn Muhammad al-Suhrawardi – is given in the colophon to a fine copy of the Shi'ite treatise attributed to 'Ali ibn Abi Talib, *Nahj al-balagha*, dated 16 Shawwal 728/24 August 1328 (Tehran, Kitabkhana Saltanati 4152). This order can be traced back to Ziya al-Din Abu'l-Najib al-Suhrawardi al-Bakri, who gave instruction from his hospice (*ribat*) on the banks of the Tigris in Baghdad in the twelfth century. Abu'l-Najib's most famous pupil was his nephew Shihab al-Din Abu Hafs 'Umar al-Suhrawardi, a renowned teacher and author of the comprehensive handbook for Sufis, *'Awarif al-Ma'arif*. One of the most important Sufis in Sunni Islam, Abu Hafs 'Umar, great-grandfather of our scribe, is often seen as the real founder of the order. He was held in great favor by the reigning 'Abbasid caliph al-Nasir, who regarded the Sufi leader as part of the aristocratized *futuwwa* (brotherhood) and sent him as ambassador to the courts of the Rum Saljuqs, the Ayyubids, and the Khwarazmshahs.

While Abu Hafs 'Umar's disciples disseminated his ideas throughout

Iraq and Iran and eventually to India, leadership in the Baghdad hospice passed down through his family. After Abu Hafs 'Umar died in 1234, his son 'Imad al-Din Muhammad (d. 1257), our scribe's grandfather, took over as leader of the Ribat al-Ma'muniyya in Baghdad. Muhammad was succeeded in turn by his son 'Abd al-Rahman, perhaps the Yahya mentioned as Ahmad's father. Ahmad, as a fourth-generation member of the Suhrawardi family descended from the order's founder Abu Hafs 'Umar, was therefore called *shaykhzada*, literally, 'son' or 'descendant of the shaykh.' Ahmad's descent in the Suhrawardi line is confirmed by the further epithet al-Bakri, used in the colophon here. This was the epithet borne by the twelfth-century originator of the Suhrawardi *tariqa*, Abu'l-Najib.

There is a vast literature on the Suhrawardiyya; a convenient beginning is *The Encyclopedia of Islam, New Edition*, ed. H. A. R. Gibb and others (Leiden, 1960), 'al-Suhrawardiyya.' R. Gramlich, *Die Gaben der Erkenntnis des 'Umar as-Suhrawardi* (Wiesbaden, 1978), contains a history of the order along with a German translation of 'Umar al-Suhrawardi's magnum opus, *'Awarif al-ma'arif*.

45. *Gulistan-i Hunar*, 21; *Calligraphers and Painters*, 60-1. Ahmad is said to have designed the 110-verse inscription of Sura 18 (al-Kahf, the Cave) that masons reproduced in baked brick on the congregational mosque in Baghdad.
46. The single-volume manuscript of the Koran dated 701/1301-2 is CBL 1467; see James, *Qur'ans of the Mamluks*, no. 37, who expresses some doubt about its authenticity. The calligraphic specimen dated 702/1302-3 is TKS, H2156, fol. 92a. The Sufi treatise dated 732/1331-2 is TKS, Ahmed III 1543.
47. For the Koran manuscripts, see James, *Qur'ans of the Mamluks*, nos. 37, 39, and 48.
48. This slant is most clearly visible when one can see the inked letters from the opposite side of the sheet, as on the page reproduced in James, *Qur'ans of the Mamluks*, fig. 50, where the two strokes from opposite sides fall at the same spot to form a V-shape with a 10° angle between them.
49. See, for example, the *kafs* in the third and fifth line of the page reproduced in Lings, *Quranic Art*, pl. 48 and the colophon to *juz*' 13 illustrated in James, *Qur'ans of the Mamluks*, 235.
50. James, *Qur'ans of the Mamluks*, 78-92; Derman, *Art of Calligraphy*, nos. 29-30.
51. James, *Qur'ans of the Mamluks*, nos. 42, 45, and 46; Sheila S. Blair, 'Scribes and Artists in the Ilkhanid Scriptorium,' *Beyond the Legacy of Genghis Khan*, ed. Linda Komaroff (forthcoming).
52. James, *Qur'ans of the Mamluks*, no. 40.
53. The dispersed thirty-volume Koran manuscript by Yaqut is copied on paper one-eighth *baghdadi* size, as are other illustrated manuscripts made there, such as copies of the *Rasa'il Ikhwan al-safa* dated 686/1287-8 (Istanbul, Suleymaniye Library, Esad Efendi 3638; Ettinghausen, *Arab Painting*, 98-102) and the *Marzubannama* dated 698/1299 (Istanbul, Archeology Museum Library, ms. 216; Simpson, 'The Role of Baghdad').
54. The manuscript (James, *Qur'ans of the Mamluks*, no. 40) bears several certificates of commissioning in the sultan's name at the front of several volumes. It was then endowed to his tomb at Sultaniyya, for two volumes contain certificates of endowment to his noble tomb (*al-rawda al-sharifa*) in the pious foundation (*abwab al-birr*) that the sultan had founded there.

The manuscript was probably commissioned soon after the outset of construction. According to Uljaytu's official biographer, Abu'l-Qasim al-Kashani (Abū'l-Qāsim 'Abdallāh Muḥammad Kāshānī, *Tārīkh-i Uljaytū*, ed. Mahīn Hamblī [Tehran, 1348/1969], 47–8), the sultan visited the site on New Year's Day 1 Muharram 705/24 July 1305, and construction started soon thereafter. Folio 5a of the first *juz'* in Leipzig (Gereon Sievernich and Hendrik Budde [eds], *Europa und der Orient* [Berlin, 1989], fig. 23) bears a small inscription beneath the illumination saying that it was written at Baghdad in 706/1306–7. The use of gold also connects this manuscript to Mongol patronage; for the Mongols considered gold an imperial color (see Thomas T. Allsen, *Commodity and Exchange in the Mongol Empire: A Cultural History of Islamic Textiles*, Cambridge Studies in Islamic Civilization [Cambridge, 1997], 60–3).

Once endowed to the tomb at Sultaniyya, the manuscript seems to have remained there intact until the seventeenth century. Adam Olearius, one of the ambassadors to Persia from the Duke of Holstein, probably saw it there in 1637. According to his account (*Travels*, 1662: 250–1, cited in James, *Qur'ans of the Mamluks*, 254, n. 14) 'our author [Olearius himself] observed several books half an ell square, written in Arabic characters the length of a man's finger with black and gold lines alternately; he even procured some leaves of them which contain a paraphrase upon the Koran called the "Candle of the Heart" and these are to be seen in the Duke of Holstein's library.' Olearius may be referring to *juz'* 24 of this behemoth Koran; part of it is now in Copenhagen (Royal Library, N7) and may have been brought back by Olearius to the Duke of Holstein, who was also the King of Denmark.

55. The Mamluk sultans ordered similar multi-part manuscripts of the Koran, such as the one copied by Yaqut's follower Ibn al-Wahid for Baybars al-Jashnagir (Figure 8.13).
56. Sheila S. Blair, 'Ilkhanid Architecture and Society: An Analysis of the Endowment Deed of the Rab'-i Rashidi,' *Iran* 22 (1984): 67–90.
57. James, *Qur'ans of the Mamluks*, Chapters 4 and 5 calls them 'the imperial Korans of Iraq and Iran.'
58. Jonathan M. Bloom, *Paper before Print: The History and Impact of Paper in the Islamic World* (New Haven, 2001), Chapter 3.
59. Likewise, the illumination in several of the single-volume manuscripts of the Koran penned by Arghun al-Kamili is signed by Muhammad ibn Sayf al-Din *al-naqqash* (the designer), and the same style of illumination in other manuscripts signed by Arghun al-Kamili suggests that the same illuminator was responsible for all of them.
60. The same was true with contemporary copies of Rashid al-Din's *Compendium of Chronicles*. Sheila S. Blair, *A Compendium of Chronicles: Rashid al-Din's Illustrated History of the World* (London, 1995).
61. Volumes in a Koran manuscript made for Tashi Khatun at Shiraz (James, *Qur'ans of the Mamluks*, no. 69), for example, were not transcribed in chronological order.
62. By way of comparison, the great Japanese calligrapher Fujiwara Sadanobi (1088–1156) is said to have taken twenty-three years to transcribe the entire Buddhist canon of 5,048 scrolls. He used a semi-cursive script on elaborately decorated paper that was dyed gray or blue and mica-stamped with pagodas. See Miyeko Murase, *The Written Image: Japanese Calligraphy and Painting from the Sylvan Barnet and William Burto Collection* (New York, 2002), 32 and nos. 5–6.
63. Just as Ahmad al-Suhrawardi was one of three calligraphers canonized

as the followers of Yaqut in Iraq, Haydar was one of three in Iran: the other two were Mubarakshah and Yusuf Mashhadi. See Blair, 'Yaqut and his Followers.'

64. *Gulistan-i Hunar*, 22; *Calligraphers and Painters*, 61.
65. No calligraphic specimens signed by Haydar are known, but the three earliest albums compiled under the Timurids (TKS: B411, H2310, and H2152) all contain specimens signed by Muhammad ibn Haydar al-Husayni dated in a narrow eighteen-month window between Shawwal 716 and Rabi' II 718 (December 1316–June 1318). Could he be the son of the calligrapher, known from architecture and texts, as Haydar?
66. Max van Berchem, 'Une inscription du sultan mongol Uldjaitu,' in *Mélanges Hartwig Derenbourg* (Paris, 1909), 367–78; A. U. Pope and P. Ackerman (eds), *A Survey of Persian Art from Prehistoric Times to the Present*, repr. 1938–9 (Tehran, 1977), pls. 396–7; Lutfallah Hunarfar, *Ganjina-yi āthār-i tārikhī-hi isfahān* (Tehran, 1350/1977), 115–21; Blair and Bloom, *The Art and Architecture of Islam*, 1250–1800, pl. 12.
 The earlier of Haydar's two signatures occurs at the end of a band dated 709/1309–10 across the north iwan of the mosque in the shrine complex at Natanz built by the Ilkhanid vizier Zayn al-Din Mastari for the Suhrawardi shaykh 'Abd al-Samad. See Sheila S. Blair, *The Ilkhanid Shrine Complex at Natanz, Iran* (Cambridge, MA, 1986). The magnificent inscription in *thuluth* has tall letters with elaborate curls at the top of the stems, the whole set on a scrolling double arabesque decorated with cut and punched flowers. The spaces between the letters are filled with knots. The signature, squeezed in at the end of the inscription, gives Haydar and his father's *kunya*. Illegible, it might be read as 'Asil al-Din.
67. Ibn Battūta, *The Travels of Ibn Battūta*, ed. and trans. H. A. R. Gibb (New Delhi, 1993 [1929]), 2:295 and 303.
68. The same eulogies are used in several calligraphic specimens signed by Muhammad ibn Haydar (see above, note 67), suggesting that the two personalities might be connected.
69. In addition to these bands in *thuluth*, the mihrab also contains an inscription in stylized *kufic* with knotted stems in a horizontal band above the inner arched niche. It contains the Shi'ite profession of faith that there is no god but God, that Muhammad is His prophet, and that 'Ali is His friend. The rectilinear style of the script stands out in juxtaposition to the *thuluth* used elsewhere in the mihrab and shows how by this period *kufic* was relegated to short and familiar texts, particularly religious ones.
70. On the role of paper designs, see Jonathan M. Bloom, 'Paper: The Transformative Medium in Ilkhanid Art,' *Beyond the Legacy of Genghis Khan*, ed. Linda Komaroff (forthcoming). Haydar was only one of several calligraphers active in Iraq and Iran in the early fourteenth century whose designs were executed in stucco. Another is Muhammad Shah *naqqash* (the designer). Muhammad Shah's name occurs at the end of a magnificent Koranic inscription in *thuluth* that was executed in cut plaster around the iwan of the shrine for Pir-i Bakran at Linjan near Isfahan, for which see Pope and Ackerman, *Survey*, pl. 387; Étienne Combe, Jean Sauvaget, and Gaston Wiet, *Répertoire chronologique d'épigraphie arabe* (Cairo, 1931), no. 5314; Sheila S. Blair, 'Artists and Patronage in Late Fourteenth-Century Iran in Light of Two Catalogues of Islamic Metalwork,' *Bulletin of the School of Oriental and African Studies* 48, no. 1 (1985): 53–9. Muhammad Shah was a well-known

- Isfahani calligrapher: he transcribed a poetic anthology in *naskh* dated 699/1300 [CBL, ms. pers. 103] as well as a copy of Juvayni's *Tarikh-i jahangusha* penned the year before; see Arthur J. Arberry, M. Minovi, and E. Blochet (eds), *The Chester Beatty Library: A Catalogue of the Persian Manuscripts and Miniatures* (Dublin, 1959–62), 4–11. The authors there suggest that Muhammad Shah may also have transcribed the first (at least, first known) illustrated copy of Bal'ami's Persian translation of Tabari's *Annals* in the Freer Gallery of Art, for which see Priscilla P. Soucek, 'The Life of the Prophet: Illustrated Versions,' in *Content and Context of Visual Arts in the Islamic World*, ed. Priscilla P. Soucek (University Park, PA, and London, 1988), 193–218; Teresa Fitzherbert, 'Bal'ami's "Tabari": An Illustrated Manuscript of Bal'ami's *Tarjama-yi Tarikh-i Tabari* in the Freer Gallery of Art, Washington (F.59.16.47.19 and 30.21),' Ph.D. dissertation (University of Edinburgh, 2001).
71. For a reconstruction of the manuscript, see Oleg Grabar and Sheila Blair, *Epic Images and Contemporary History: The Illustrations of the Great Mongol Shah-Nama* (Chicago, 1980); Sheila S. Blair, 'On the Track of the "Demotte" *Shāhnāma* Manuscript,' in *Les Manuscrits du Moyen-Orient: essais de codicologie et de paléographie*, ed. François Déroche (Istanbul/Paris, 1989), 125–31; Sheila S. Blair and Jonathan M. Bloom, 'Epic Images and Contemporary History: The Legacy of the Great Mongol *Shahnama*,' *Islamic Art* 5 (2001): 41–52; Jonathan M. Bloom, 'The Great Mongol *Shahnama* in the Qajar Period,' in *Shahnama: The Visual Language of the Persian Book of Kings*, ed. Robert Hillenbrand (Aldershot, 2004), 25–34; Sheila S. Blair, 'Rewriting the History of the Great Mongol *Shahnama*,' in *Shahnama: The Visual Language of the Persian Book of Kings*, ed. Robert Hillenbrand (Aldershot, 2004), 35–50.
 72. This page was published most recently in Linda Komaroff and Stefano Carboni (eds), *The Legacy of Genghis Khan: Courtly Art and Culture in Western Asia, 1256–1353* (New Haven, 2002), no. 37.
 73. Abolala Soudavar, 'The Saga of Abu-Sa'id Bahador Khan. The Abu-Sa'idnama,' in *The Court of the Il-Khans, 1290–1340*, ed. Julian Raby and Teresa Fitzherbert, *Oxford Studies in Islamic Art* 12 (Oxford, 1996), 95–218.
 74. The treatise, *Risala-yi adab-i khatt* or *adab-i mashq*, has been published recently by Najib Mayil Haravi, 'Risāla-yi adāb-i khatt-i 'Abdallāh Sayrafī Tabrizī,' *Waqf Mirāth-i Jāvidān* 4 (Winter 1372/1994): 128–36, on the basis of three Iranian copies dating from the sixteenth and seventeenth centuries. The introduction has three sections describing the science (*ilm*) of writing, how to make ink, and how to cut the pen. The first section of the treatise lists the scripts and their names, first the rectilinear *ma'qili* and *kufi* and then the six round scripts used since the time of Ibn Muqla. A second section describes the principles of writing each letter following the method (*tariqa*) of Ibn Muqla. The letters are formed of and measured in dots made by applying the nib of the pen to paper. The *alif* in *muhaqqaq*, for example, is eight dots high. The remainder of the treatise is a discourse on compounds or groups of letters, divided into three parts. The first describes how to join two letters, the second how to join more than two letters, and the third how to begin and end letters. Clearly and elegantly composed, the treatise confirms the canonization of Yaqut's methods in Iran by the fourteenth century.
 75. *Elr*, 'Abdallāh Sayrafī.'

76. According to both Dust Muhammad and Qadi Ahmad, "Abdallah Sayrafi studied with Haydar, beginning as a master of inscriptions intended to be executed in glazed tiles. 'Abdallah Sayrafi is said to have designed the inscriptions for many buildings in and around Tabriz, including two commissioned by descendants of Amir Chupan. One was the Dimashqiyya Madrasa, commissioned by his daughter Baghdad Khatun and the burial place of her brother Dimashq Khwaja, killed on the orders of the Ilkhanid sultan Abu Sa'id in 727/1327. The other was the 'Building of the Master and Pupil' (*Imarat-i ustad wa shagird*), so-called to commemorate the work of 'Abdallah Sayrafi and his pupil (according to Dust Muhammad, also his nephew), Hajji Muhammad *bandgir*. Also known as the 'Ala'iyya or Sulaymaniyya, the building was constructed between 741-3/1340-3 in the name of the Ilkhanid ruler Sulayman ibn Yusufshah and financed by Chupan's grandson Hasan-i Kuchik.
77. 'Abdallah Sayrafi's earliest dated work to survive is an album page dated 710/1310-11 (TKS B411, fol. 70b). His latest is a Koran manuscript dated 744/1343-4 (TIEM, ms. 178).
78. CBL, ms. 1468; Arthur J. Arberry, *The Koran Illuminated: A Handlist of Korans in the Chester Beatty Library* (Dublin, 1967), no. 136; James, *Qur'ans of the Mamluks*, no. 52. Each page measures 28 × 18 cm. This was clearly an expensive copy, probably destined for a royal foundation, perhaps the contemporary Dimashqiyya Madrasa.
79. Astan-i Quds no. 279; Gulchīn-i Ma'ānī, *Rahnama*, no. 47; Soudavar, 'Abu-Sa'idnama,' figs. 54-5.
80. This skill is particularly clear from the colophon (illustrated in Gulchīn-i Ma'ānī, *Rahnama*, 106, and Soudavar, 'Abu-Sa'idnama,' figs. 54-5), written in *thuluth*, the script most frequently used for architectural inscriptions. In the penultimate line of the colophon, 'Abdallah Sayrafi ingeniously elaborated his signature by repeating the word *fi* above the line: the first *fi* is the last syllable of his name al-Sayrafi; the second *fi* (in) is the first word of the date. He extended the tail of the final *ya*' backwards to the right in a long line. This mannered *ya*' with a long tail extending to the right, which serves here to separate colophon from text, became a hallmark of architectural inscriptions, where the tail serves as the baseline for a second line of script inserted above the first.

Sura headings in the *juz*' from 'Abdallah Sayrafi's Koran manuscript in Dublin (illustrated in Pope and Ackerman, *Survey*, pl. 939B; Arberry, *Koran Illuminated*, pl. 49) are done in a stylized *kufic* on a scroll ground. The scrolling ground recalls architectural inscriptions, and the stylized *kufic* recalls the title over at least one illustration from the *Shahnama* manuscript, a scene of Nushirwan the Just (Cleveland Museum of Art 59.330; Grabar and Blair, *Epic Images*, no. 54).

Based on his analysis of the first volume of the Great Mongol *Shahnama*, Soudavar enumerated several further characteristics of 'Abdallah Sayrafi's hand. He was the only calligrapher of the many involved in the manuscript to use the old-fashioned dotted *dal*. He often wrote medial *ha*' in a graceful V-shape and occasionally piled three dots under *sin* as an upright pyramid. He also connected several letters. He used a compact and controled curve for the so-called *yaquti* connection, linking *ra*' and *dal* with final *ha*'. He also connected *alif* and *dal*. This ligature is typical of *thuluth*, as is his typical *ra*' with an upturned hook at the end, used especially in the syllables *far* and *kar*.

81. The same seems to true of the three-volume copy of the *Kitab-i Samak* 'Ayyar (Book of the Paladin Samak), done at Shiraz in the early

- fourteenth century (Bodleian Ouseley, 379–81; B. W. Robinson, *A Descriptive Catalogue of the Persian Paintings in the Bodleian Library* [Oxford, 1958], 2–7), which also has different rulings in the third volume.
82. TKS B411, fol. 78b signed by Muhammad ibn Muhammad al-Musharriji in 766/1364–5; see Roxburgh, 'Our Works Point to Us,' 566.
 83. Robert Hillenbrand suggested to me that the term may have been used to indicate the varied cargo in these albums.
 84. Four of the fancier albums (H2152, H2153, H2154, and H2160) were the subject of a conference held in London in June 1980. The conference papers, published as the first volume of *Islamic Art* (1981), deal mainly with the illustrations, but two articles by Filiz Çağman, 'On the Contents of Four Istanbul Albums, H. 2152, 2153, 2154 and 2160,' *Islamic Art* 1 (1981): 31–6, and Zeren Tanındı, 'Some Problems of Two Istanbul Albums, H. 2153 and 2160,' *Islamic Art* 1 (1981): 37–41, discuss the calligraphic specimens. More recently, Roxburgh, 'Our Works Point to Us' has painstakingly analyzed the contents of the three earliest albums (H2310, B411, and H2152), which have frequently been pillaged, restored, and rebound. Between 1786 and 1790, for example, Heinrich Friedrich von Diez, Prussian ambassador to the Sublime Porte, removed folios from these albums in Istanbul, using the materials to make five more albums, which are now preserved in Berlin (Staatsbibliothek, Diez A; see also David J. Roxburgh, 'Heinrich Friedrich von Diez and his Eponymous Albums: Mss. Diez A. Fols. 70–74,' *Muqarnas* 12 [1995]: 112–36). David J. Roxburgh, 'Bahrām Mīrzā and his Collections,' in *Safavid Art and Architecture*, ed. Sheila R. Canby (London, 2002), 37–42, has recently called attention to another, newly discovered album in Istanbul (TKS B410) compiled for the Safavid prince Bahram Mirza with calligraphies by Yaqut and his followers.
 85. Roxburgh, 'Our Works Point to Us,' 582–3 and fig. 13. For details of the album and its compilation in the early fifteenth century, see below, p. 261.
 86. For a discussion of the *tughra*, see Chapter 8. To judge from the dates that Hajji Muhammad carried this epithet, he must have worked in the Jalayirid chancery.
 87. The Arabic root *sh-r-j* means to join, as in put or set together bricks; see Edward William Lane, *An Arabic-English Lexicon* (London and Edinburgh: Williams and Norgate, 1863), 1529. The epithet *bandgir* seems to be the equivalent of the modern *bandkish*, someone who points between cement blocks. F. Steingass, *A Comprehensive Persian-English Dictionary Including the Arabic Words and Phrases to be Met with in Persian Literature* (Beirut, 1972 [1892]), 202, defines *bandgir* as a fine cement made of chalk, with oil and cotton or ox-hair, employed in the construction of baths. Dehkhoda's multi-volume dictionary gives much the same definition: *bandgir* (also known as *pihdaru*), a compound made up of lime, animal fat, cotton, and hair that is used in bathhouses or (small) pools to prevent water from leaking. (I thank Ali Banuazizi for this citation.) The noun *band* also refers to a joint in pottery; see Hans E. Wulff, *The Traditional Crafts of Persia: Their Development, Technology, and Influence on Eastern and Western Civilizations* (Cambridge, MA, 1966), 165–6.

The same epithet *bandgir* turns up in the inscription on the stupendous stucco mihrab added to the mosque at Marand in 731/1330 with the name of the artisan Nizam al-Tabrizi; Combe, Sauvaget, and Wiet, *RCEA*, no. 5615. The mihrab is illustrated and discussed in Pope and Ackerman, *Survey*, pl. 398 and 1097, n. 4, where the translation

- 'pointer' is suggested, perhaps on analogy with the modern Persian *band-kashi kardan* (to point). (I thank Robert Hillenbrand for this reference.)
88. According to the Turkoman historian Hafiz Husayn Karbala'i Tabrizi (d. 998/1590), author of a guide to the tombs of famous religious figures buried in Tabriz and its environs (308, cited in Muḥamad Javād Mashkūr, *Tārīkh-i tabriz tā pāyān-i qarn-i nuḥum-i hijrī* [Tehran, 1352], 120), Hajji Muhammad *bandgir* designed the inscriptions for the Madrasa Qadiyya in the Chahar Manar quarter of Tabriz. He is also said to have assisted his master 'Abdallah Sayrafi in designing the inscriptions for the Madrasa of the Master and Pupil in Tabriz; see above, note 76.
 89. According to 'Ali Yazdi's *Zafaranama* written c. 1425 (2:448, cited in Roxburgh, 'Our Works Point to Us,' 62), Hajji Muhammad *bandgir*'s son Shaykh Muhammad is said to have written an enormous epistle (*kitabāt*) to the sultan of Egypt. The document measured three cubits (*gaz*) wide and seventy cubits (*dhar'*) long. This story gets somewhat jumbled in at least one version of Qadi Ahmad's treatise (*Gulistan-i Hunar*, 25; *Calligraphers and Painters*, 63, n. 170), where it is confused whether Hajji Muhammad or his son was responsible. Qadi Ahmad also added that the letter was written in 788/1386 in gold ink (*ab-i tala*). Based on the *gaz* used by Yazdi's contemporary, Hafiz-i Abru, which measured 42 cm (see Sheila S. Blair, 'The Mongol Capital of Sultāniyya, "the Imperial,"' *Iran* 24 [1986]: 143), then this letter would have measured 126 cm wide. Such a document might well have been written in a large script like this one.
 90. For example, in the revised version of his treatise (*Gulistan-i Hunar*, 17; *Calligraphers and Painters*, 56, n. 135), Qadi Ahmad, after enumerating the Six Pens invented by Ibn Muqla, added that 'if you write with a larger pen, the writing is *tumar*, and if the pen is finer the writing is *ghubar*. Thus the number of styles become eight, but the basic styles for which the inventor [Ibn Muqla] has set canons are six.' Both of these names, *tumar* and *ghubar*, were also used in Mamluk times (see Chapter 8).
 91. *Gulchini*, 55.
 92. The same thing happened to the Chinese calligrapher Wang Xizhi, whose work was canonized in the seventh century: he became the most famous calligrapher of all times thanks to the efforts of the Tang emperor Taizong (r. 626–49), who saw Wang's calligraphy, which was closely associated with the aristocracy of south China, as a symbol of national unification. See Robert E. Harrist and Wen C. Fong, *The Embodied Image: Chinese Calligraphy from the John B. Elliott Collection* (Princeton, 1999), 96. The Tang emperor apparently pruned from the canon all of Wang's works that did not fit in with the image of scholarly tranquility; see Wang, 'Taming of the Shrew.'
 93. Richard Ettinghausen, 'On Some Mongol Miniatures,' *Kunst des Orients* 3 (1959): 56–65.
 94. Soudavar, *Art of the Persian Courts*, no. 22.
 95. B411 is a composite of three separate parts, two of them themselves separate calligraphic albums (part three, an incomplete anthology made for the Timurid prince Iskandar Sultan at Isfahan, is not considered here). Roxburgh, 'Our Works Point to Us,' 60–9, speculated that the second part of B411 (fols. 72a–137b and 167a–169b), the simplest, may be the oldest album to survive. In order to maximize the text, the individual specimens, which are backed with rough paper and framed

with blue, gold, and black rulings, were pasted on the page both horizontally and vertically without any border. The incomplete album contains runs by a single calligrapher, including specimens by Yaqut and at least eight other calligraphers active in the early fourteenth century. It also contains many works by Hajji Muhammad Bandgir al-Tabrizi al-Musharriji as well as copies of his works by two of his students and his son Shaykh Muhammad. Roxburgh suggested that this incomplete album represented the collection of family papers preserved by Hajji Muhammad Bandgir's son Shaykh Muhammad. From signed works, we know that Shaykh Muhammad worked at the Timurid court, first for Timur and Khalil Sultan at Samarkand and then for Baysunghur and Shahrukh at Herat, and the family collection of specimens may have been made into an album at a Timurid scriptorium in the early fifteenth century.

The first part of B411 (fols. 1–71b), also incomplete, is more complexly organized than the second part of the volume. In this part the individual calligraphies were attached to pre-existent folios made of crisp, polished paper and set within a paper border. The complex method of assembling the folios is matched by an equally deliberate method of arranging the calligraphies, with long runs of calligraphies by Yaqut and three of his followers, as well as works by the Timurid calligraphers Shams and Ja'far Baysunghuri (the last were detached from the album by Heinrich Friedrich von Diez and are now in Berlin). This first part of album B411 was likely assembled shortly after 837/1433, the date of the last dated work (fol. 56b), probably at Herat in the scriptorium sponsored by Shahrukh.

96. One of the best known compiled at this time was Muḥammad ibn Hindūshāh Nakhchivānī, *Dastūr al-kātib fī ta'yīn al-marātib* (Moscow, 1964).
97. The number six was surely chosen to accord with the six scripts; on the problems of identifying the pupils, see Blair, 'Yaqut and his Followers.'
98. Priscilla P. Soucek, 'The Arts of Calligraphy,' in *The Arts of the Book in Central Asia 14th–16th Centuries*, ed. Basil Gray (Boulder, CO, 1979), 16 and fig. 7; Roxburgh, 'Our Works Point to Us,' 694–6.
99. See Roxburgh, 'Our Works Point to Us,' 644–771, for the contents. Only two specimens date from the early fourteenth century: in addition to the one by Muhammad ibn Haydar al-Husayni, there is a single, undated piece by Pir Yahya al-Sufi (fol. 16b). Most specimens date from the Timurid period and include works by members of the royal house. The album passed to the Ottomans, for it bears the seal of Selim I (r. 1512–20). It may have been brought to Istanbul by the fleeing Timurid prince Badi' al-Zaman, or it may have been seized during Selim's campaigns in Azerbaijan in 920/1514 after he had trounced the Safavids at Chaldiran on 2 Rajab/23 August and occupied Tabriz on 17 Rajab/7 September.
100. They include, on the right in descending order, Muhammad ibn Mahmud Shah Khayyam, Na'imi, Mansur ibn al-Qati' al-Ruzbihani, Yusuf al-Amiri, al-'Ala *al-naqqash*, Ma'ruf al-Fallas, Hajji Muhammad, and on the left side in descending order Hajji Muhammad, Ja'far, Muhammad ibn Ja'far, Mahmud ibn Muhammad ibn Ja'far, Payanda Darvish, and 'Ali al-Husayni. One set on the left side may represent the work of three generations of the same family: Ja'far, Muhammad ibn Ja'far, Mahmud ibn Muhammad ibn Ja'far.
101. *Gulistan-i Hunar*, 23; *Calligraphers and Painters*, 62. Bayani, *Ahval wa athar-i khushnivisan*, 1024, gives a brief biography.

102. Berlin, Staatsbibliothek Petermann I, 386; according to the colophon on folio 155b (reproduced in Soucek, 'Calligraphy,' fig. 5), his full name was Ahmad ibn Mas'ud, known as al-Rumi.
103. Shiraz was already the center of a distinctive style of manuscript painting in the fourteenth century under the patronage of the Inju family. Manuscripts produced there show an exuberant, slapdash script marked by similar swooping curves. See, for example, Komaroff and Carboni, *Legacy*, figs. 181, 264, and 265. For Ibrahim Sultan's works and his atelier, which was directed by the illuminator Nasr al-Sultan/Nasir al-Din Muhammad, see Francis Richard, 'Naṣr al-sultānī, Naṣir al-dīn Mozahheb et la bibliothèque d'Ebrāhīm Sultān à Šīrāz,' *Studia Iranica* 30, no. 1 (2001): 87–104.
104. The small manuscript (28 × 11 cm) originally comprised two-volumes (Thomas W. Lentz and Glenn D. Lowry, *Timur and the Princely Vision* [Los Angeles, 1989], no. 22). The first volume (MMA 13.228.1) is dated 4 Ramadan 830/29 June 1427. Other examples of small Koran manuscripts from the Timurid period are illustrated in Lings, *Quranic Art*, pls. 86–8.
105. Eleanor Sims, 'Ibrāhīm-Sultān's Illustrated *Zafar-Nāmeḥ* of 839/1436,' *Islamic Art* 4 (1990–1): 175–218; Eleanor Sims, 'Ibrahim-Sultan's Illustrated *Zafarnama* of 1436 and its Impact in the Muslim East,' in *Timurid Art and Culture: Iran and Central Asia in the Fifteenth Century*, ed. Lisa Golombek and Maria Subtelny, Supplements to Muqarnas (Leiden, 1992), 132–43. The calligrapher, whose full name was Abu'l Da'i Ya'qub ibn Hasan ibn Shaykh, was a native of Shiraz and a disciple of the mystic Sadr al-Din Ruzbihan Shirazi. A well-known calligrapher in service to Ibrahim Sultan, he also wrote a treatise on calligraphy, *Tuhfat al-muhibbin* (Gift of the Lovers), compiled at Bihar in India in 858/1454; see Richard, 'Naṣr al-sultānī'; Francis Richard, 'Autour de la naissance du *nasta'liq* en Perse: les écritures de chancellerie et le foisonnement des styles durant les années 1350–1400,' *Manuscripta Orientalia* 9, no. 3 (September 2003): 8.
106. These swooping tails are also found in at least one Koran manuscript said to be Yaquṭ's hand (TKS EH 74), but probably a fifteenth-century copy (see above, note 16).
107. A similar script is used, for example, in a copy of Ahmadi's *Iskandarnama*, recently attributed to Anatolia c. 1450 but with paintings modeled on the early fifteenth-century Shirazi style (Venice, Marciana Library XC; Ernst J. Grube, 'The Date of the Venice *Iskandar-Nama*,' *Islamic Art* 2 [1987]: 187–202). Similarly, an illustrated copy of the *Ni'matnama* made at Mandu around the turn of the fifteenth to sixteenth century is copied in a similar style (Figure 9.10) and has illustrations in the Turkoman style associated with Shiraz. The origin of this style and its development in fourteenth- and fifteenth-century manuscripts (see the list in Sims, 'Ibrāhīm-Sultān's Illustrated *Zafar-Nāmeḥ* of 839/1436,' n. 10) remain to be explored fully, but Richard's identification of the calligrapher Siraj al-Husayni as author of the treatise *Tuhfat al-muhibbin*, written at Muhammadabad in Bihar in 858/1454, shows one possible means of transmission. The calligrapher not only made the pilgrimage to Arabia, but journeyed as far as India, where he wrote his treatise on calligraphy. Such travels were made possible in part by the network of Sufi hospices that existed throughout the Islamic lands. Ibn Battuta freeloaded for decades, staying in these Sufi hospices. Siraj al-Husayni's Sufi connections were strong too: he

dedicated his work to Habib al-Din Muhibballah ibn Burhan al-Din Amirzada Khalilallah ibn Nur al-Din Shah Ni'matallah Kirmani, grandson of the celebrated Qadiri mystic and husband of the granddaughter of the Bahmanid sultan.

108. The Khurasani style of *naskh* can be seen in a manuscript of astronomical tables made for the Timurid prince Ulugh Beg, probably at Samarqand c. 1440 (Soudavar, *Art of the Persian Courts*, no. 25). Similarly, when the copy of the *Zafarnama* made for Ibrahim Sultan was later taken to Herat, the calligrapher Darvish Muhammad ibn 'Ali added a 72-folio introduction dated Muharram 885/March 1480 using the more fluid style of *naskh*.
109. Conversely, these diagonal bands also help scholars trying to reconstruct a dispersed manuscript, as the presence of a folio with diagonal lines signals a missing page with illustration. Sims was able to show, for example, that folio 224a, an entire page with diagonal bands, must have followed an illustrated folio, now missing, but whose paint has offset on folio 222b.
110. Fullest discussion of this manuscript in Soudavar, *Art of the Persian Courts*, no. 20, and James, *Master Scribes*, 18–23 and nos. 2–3.
111. *Gulistan-i Hunar*, 25; *Calligraphers and Painters*, 64. According to Qadi Ahmad, 'Umar 'Aqta' was provoked into writing this enormous Koran manuscript because he had first produced a tiny one in *ghubar* script so small that it could be fitted under the socket of a signet ring. His patron, the warlord Timur, was not amused and did not reward the calligrapher, who retorted by producing a huge manuscript. This part of the anecdote must be apocryphal, for such a large manuscript could not have been made without royal underwriting: the paper alone was prodigiously expensive.
112. Brief description with references in Blair and Bloom, *The Art and Architecture of Islam, 1250–1800*, 39–40. Full description in Lisa Golombek and Donald Wilber, *The Timurid Architecture of Iran and Turan* (Princeton, 1988), no. 28.
113. The Koran stand, which measures 2.3×2 m, is illustrated in Lentz and Lowry, *Timur*, fig. 26 and Soudavar, *Art of the Persian Courts*, 59, fig. 3.
114. The seven-line arrangement was used, however, for the copy bequeathed by the Mamluk sultan Sha'ban to his mother's madrasa in Cairo (Cairo, DK 9; James, *Qur'ans of the Mamluks*, no. 31). The Mamluk manuscript, though one of the most magnificent and largest copies of its time, was transcribed on bifolios of full-*baghdadi* size, less than one-half the area of a single page in the Baysunghur Koran.
115. Such borders are necessary so that the reader can turn the pages without soiling the text. This reconstruction assumes borders of 25 cm on a side.
116. Bloom, *Paper before Print*, 66–8.
117. James, *Master Scribes*, 22–3, discussed the varied number of laid lines in the scant handful of pages that have been examined by a paper conservator. Three pages have 4–5 laid lines per cm running vertically along the axis of the page; one other has 11 lines per cm. James concluded that the different papers were the result of different moments of production, the former belonging to the original manuscript and the later a nineteenth-century replacement.

Such a scenario is unconvincing for several reasons. First, it presupposes technical uniformity that is unlikely in such a mode of production. Given the need for so many molds to produce the 1,600 sheets

required for this manuscript, it is not surprising that they varied. Second, it ignores the technical proficiency (or lack thereof) of paper-making in Iran and Central Asia in the nineteenth century. In the mid-nineteenth century when papermakers wanted to repair the Great Mongol *Shahnama*, the only papers available were crummy Russian sheets so small that they had to be pieced together to make borders. Third, James' hypothesis of two periods of production ignores the uniformity of calligraphy found on all the pages. When nineteenth-century calligraphers copied replacement pages for the Great Mongol *Shahnama*, the replacements are readily detectable. See Bloom, 'Great Mongol Shahnama'; Blair, 'Rewriting'.

118. This page in the Art and History Trust Collection and on loan to the Sackler Gallery in Washington, DC (LTS1995.2.16.1), which comprises seven strips pasted together, was also published in Lentz and Lowry, *Timur*, no. 6C; Soudavar, *Art of the Persian Courts*, no. 20; Blair and Bloom, *The Art and Architecture of Islam, 1250-1800*, no. 75. Other pages in the Khalili Collection (QUR596) are made of four sheets patched together.
119. Some pages, such as one sold at Sotheby's in 1988 (for which, see David James, 'A Leaf from Baysunqur's Great Qur'an,' in *Art at Auction, 1988-89* [London, 1989]), were redecorated in the Qajar period.
120. One dated 827/1414, with pages measuring 82 × 62 cm, is in the Shrine Library at Mashhad (no. 414; see Gulchīn-i Ma'ānī, *Rahnama*, no. 61; Lings, *Quranic Art*, no. 81; *The Arts of Islam*, exhibition catalogue, Hayward Gallery [London, 1976], no. 554). Qadi Ahmad (*Gulistan-i Hunar*, 31; *Calligraphers and Painters*, 71) describes a large Koran manuscript measuring 2 cubits (*dhar'*) high by 1.5 cubits wide transcribed by the Timurid prince Ibrahim Sultan and endowed to the shrine (*mazar*) of Baba Lutfallah 'Imad al-Din, presumably in Shiraz. Could this be the very one? Ibrahim Sultan also transcribed another smaller Koran manuscript dated 834/1430-1 (Shiraz, Pars Museum, 430MP; Lings, *Quranic Art*, pls. 82-3), with pages measuring 65 × 45 cm.
121. E.g., TIEM 564, with pages 54 × 40 cm; Lentz and Lowry, *Timur*, no. 19.
122. One part of a Koran codex penned by Hajji Muhammad's son Shaykh Muhammad Tughra'i in 809/1406-7, now in the Shrine Library at Mashhad (no. 145), is entirely in gold; see Gulchīn-i Ma'ānī, *Rahnama*, no. 58.
123. Using kufic was a conscious archaism. It was revived occasionally for inscriptions. The masterpiece of the genre is the foundation inscription dated 839/1435-6 from the minarets of the mosque of Gawhar Shad at Herat, for which see Bernard O'Kane, *Timurid Architecture in Khurasan* (Costa Mesa, CA, 1987), 73-4 and pls. 14.7-8. The designers plaited the stems to form a decorative middle band between the small letter bodies and the decorative terminals. This script, however, was rare, perhaps because it was difficult to read (and still is: the photograph in Lentz and Lowry, *Timur*, fig. 75, is upside down).
124. Dublin, CBL, 1499; Arberry, *Koran Illuminated*, no. 139 and pl. 5. The manuscript has a colophon with the name of the calligrapher 'Abdallah Haravi and the date 834/1430-1. He is probably to be identified as Shihab al-Din 'Abdallah Haravi, one of the calligraphers who worked in the atelier of prince Baysunghur at Herat. Known as the cook (Arabic *tabbakh*; Persian *ashpaz*), 'Abdallah is said to have studied calligraphy with Ja'far Baysunghuri, the head of Baysunghur's scriptorium, from

whom he also learned the hanging *nasta'liq* style (Thackston, *Album Prefaces*, 9, n. 20). 'Abdallah Haravi's works range in date from 833/1429–30 (an album page in Tehran) to Rabi' I 873/October 1467 (a Koran manuscript in *naskh*; CBL 1511; Arberry, *Koran Illuminated*, no. 141). According to Qadi Ahmad (*Gulistan-i Hunar*, 27; *Calligraphers and Painters*, 66), 'Abdallah Tabbakh was a master of (gold)-sprinkling (*afshan*) and preparing the sheets for binding (*vassali*; on this word, see Yves Porter, *Painters, Paintings and Books: An Essay on Indo-Persian Technical Literature, 12–19th Centuries*, trans. Mrs S. Butani [New Delhi, 1994], 118–19); he also designed inscriptions, including those for the shrine at Gazargah outside Herat and the Aghacha Mosque in Mashhad. David James, *Qur'ans and Bindings from the Chester Beatty Library: A Facsimile Exhibition*, exhibition catalogue (n.p., 1980), no. 61, thinks that the colophon is a fake but that the manuscript is nonetheless a fine example of sixteenth-century work but does not explain why he thinks so. Another similar Koran manuscript in Istanbul (TKS HS 4) is signed by Muhammad ibn Sultanshah al-Haravi and dated 1–10 Ramadan 890/11–21 November 1485 (Derman, *Art of Calligraphy*, nos. 46–7).

125. Two sections with *juz*' 3 and 26 survive in Dublin (CBL 1501–1502; see Arberry, *Koran Illuminated*, nos. 147–8; Soucek, 'Calligraphy,' 12–13; James, *Qur'ans and Bindings*, no. 55). James also mentions that a fine page of this manuscript was sold at Sotheby's in July 1980.

The same scribe calligraphed another small Koran manuscript with interlinear translation in Persian that was finished in Jumada I 876/October 1471 and endowed by the Mughal emperor Jahangir to the shrine library at Mashhad (no. 137; Gulchīn-i Ma'ānī, *Rahnama*, 64). Dedications on the first and last pages (one partly published by Faẓā'ilī, *Atlas-i khatt*, 333) state that it was made for Abu'l-Fath Muzaffar al-Din Hasan Bahadur Khan, presumably meaning the Aqqoyunlu ruler Uzun Hasan (r. 1457–78), although his *kunya* is usually Abu'l-Nasr. James, *Qur'ans and Bindings*, 73; James, *Master Scribes*, 38, attributes this multi-part manuscript to the patronage of Uzun Hasan's son Ya'qub Beg.

Zayn al-'Abidin is probably also responsible for a copy of the hundred aphorisms of 'Ali collected by Rashid-i Vatvat (Arberry, Minovi, and Blochet, *The Chester Beatty Library: A Catalogue of the Persian Manuscripts and Miniatures*, no. 126) dated by Arberry c. 860/1456.

126. One page is illustrated in Soucek, 'Calligraphy,' fig. 3. There is an unauthorized connection between *ra*' and *waw* in *yunzarun*, the last word of verse 89 in the third line.
127. This is the case with the colophon to *juz*' 3, reproduced in Faẓā'ilī, *Atlas-i khatt*, 333.
128. See, for example, the dismissive comments by Lings, *Quranic Art*, 171, n. 73.
129. This is the case, for example, with Dust Muhammad, writing in 951/1544 (Thackston, *Album Prefaces*, 8–9); Mir Sayyid Ahmad Mashhadi, writing in 972/1564–5 (Thackston, *Album Prefaces*, 24–5); Qutb al-Din Yazdi, writing in 964/1556–7 (Qutb al-dīn Muḥammad Qisṣa-khwān, 'Risāli dar tārikh-i khatt,' *Sukhan* 17 [1346/1967]: 680); and Qadi Ahmad, writing c. 1015/1606 (*Gulistan-i Hunar*, 42 and 57; *Calligraphers and Painters*, 84 and 101).

A native of Isfahan, Taj al-Din became, according to Ibn Arabshah (cited in Soucek, 'Calligraphy,' 18 and n. 46), one of Timur's court scribes.

- He earned the epithet 'qibla of calligraphers,' and later calligraphers copied his work. In 897/1491–2 Wali Gilani, for example, copied a calligraphic specimen that the Taj al-Din Salmani had penned in 821/1418–19 (cited in Bayānī, *Ahval wa athar-i khushnivisan*, 1285). No examples of Taj al-din Salmani's hand are known. For Mir 'Ali, see below.
130. On this point, see Vlad Atanasiu, *De la fréquence des lettres et de son influence en calligraphie arabe*, preface by François Déroche (Paris, 1999).
 131. For the rare manuscripts, see Richard, 'Naissance du *nasta'liq*.'
 132. *El*/2, 'Khatt ii.' The longest discussion of this script is Faẓā'ilī, *Atlas-i khatt*, 393–419. See also *Elr*, 3:694–6.
 133. Francis Richard, 'Divānī ou ta'liq: un calligraphe au service de Mehmet II, Sayyidī Mohammad Monšī,' in *Les Manuscrits du moyen-orient: essais de codicologie et paléographie*, ed. François Déroche (Istanbul/Paris, 1989), 89–93.
 134. Soudavar, *Art of the Persian Courts*, no. 9; Komaroff and Carboni, *Legacy*, no. 68.
 135. The Ilkhanids often issued documents written in Mongolian, including two letters that Arghun and Uljaytu sent to Philip le Bel in 1289 and 1305. See the color illustration in Carole Hillenbrand, *The Crusades: Islamic Perspectives* (Edinburgh, 1999), pl. 4. For other examples in Tehran, see Paul Pelliot, 'Les documents mongols du Musée de Tēherān,' *Athār-é ĩrān* 1, no. 1 (1936): 37–44.
 136. James Boisson, 'Scripts and Literacy in the Mongol World,' in *Mongolia: The Legacy of Chinggis Khan*, ed. Patricia Berger and Terese Tse Bartholomew (New York, 1995), 88–95. Since it was so cumbersome, this script set into a square box was used mainly for insignia and seals alongside the regular Uighur script adopted by the Mongols to write Mongolian.
 137. A decree issued in Dhu'l-Qa'da 773/1372 by the Jalayirid sultan Ahmad concerning the hospice (*zawiya*) of Shaykh Safi at Ardabil (BN, supp. pers. 1630; Soucek, 'Calligraphy,' fig. 6), for example, is sealed with a large square box with the profession of faith, quotations from the Koran, and other pious phrases in Arabic. Arabic written in square kufic resembles Mongolian written in *phagspa*, so some authors erroneously call square kufic seal script and derive its origins from Chinese seals. Square kufic, however, was used in Iranian architecture since the twelfth century, long before the introduction of *phagspa* for seals. Seals in square kufic were apparently adopted by others in the Ilkhanid realm. A small bronze seal with the name of the Sufi shaykh Abu Ishaq written in retrograde (Copenhagen, David Collection, 7/1996; Komaroff and Carboni, *Legacy*, no. 167) was probably used to stamp documents connected with his shrine complex at Kazarun in south-western Iran.
 138. According to Qadi Ahmad (*Gulistan-i Hunar*, 42; *Calligraphers and Painters*, 82) and his contemporaries (see also Thackston, *Album Prefaces*, 9, 25, and 33), 'Abd al-Hayy was a native of Astarabad who became world-renowned for writing the sultan's correspondence, the Yaqut of his age. After the disastrous defeat of the Timurids and the death of Abu Sa'id at the hands of Uzun Hasan near Qarabagh in Azerbaijan in Rajab 873/February 1469, 'Abd al-Hayy went to work at the Aqqoyunlu court in Tabriz. He stayed then until the end of his life. Qadi Ahmad reported that 'Abd al-Hayy lived until the beginning of the reign of Shah Isma'il (r. 1501–24), founder of the Safavid dynasty. Having abandoned his court position and lived in seclusion, 'Abd

al-Hayy died in Tabriz in 907/1501–2, where he was buried in the funerary enclosure (*hazira*) that he had built there.

From these biographical details, it is clear that the calligrapher and clerk 'Abd al-Hayy is, therefore, not to be confused with the painter Khwaja 'Abd al-Hayy, who worked for the Jalayirid Sultan Uways in Baghdad, was taken by Timur to Samarqand, and died there (*Elr*, 'Abd al-Hayy') nor with the amir Nizam al-Din 'Abd al-Hayy Astarabadi, a teacher and judge who belonged to a learned family from Jurjan, taught at 'Ali Shir Nava'i's madrasa in Herat, worked in the chancery during the reign of the Shibanid Muhammad Khan (r. 1500–10), and retired to Astarabad in 930/1523–4 (*Khwandamir, Tārīkh-i ḥabīb al-siyār*, ed. Muḥammad Dabīr-Siyāqī [Tehran, 1353/1975], 4:614 and 617; *Khwandamir, Ḥabību's-Siyar Tome Three*, trans. and ed. W. M. Thackston, Sources of Oriental Languages and Literatures [Cambridge, MA, 1994], 619–20).

139. According to Qadi Ahmad, the eastern style of *ta'liq* was characterized by two features. The first was *rutubat*. The term literally means lush greenery and verdure. Minorsky translated it as lusciousness; in relationship to calligraphy, it means softness. The adjective *murattaba*, literally meaning wet and figuratively meaning round or plump, is the opposite of *yabis*, literally dry and figuratively sharp-edged. Of the scripts known as the Six Pens, *thuluth* was always 'wet,' whereas *muhaqqaq* was 'dry.' The second characteristic of the eastern style of *ta'liq* was *harakat*. Minorsky translated the word as movement. The plural refers to vocalization marks, such as *fatha*, *damma*, *kasra*, *sukun*, and *tanwin*.

The Safavid chronicler distinguished this eastern type of *ta'liq* from a second variety used in the chanceries of western Iran and Iraq. It was distinguished by four characteristics, designated by two Arabic and two Persian nouns: *istihkam*, *pukhtagi*, *usul*, and *chashni*. The first, *istihkam*, is an Arabic noun meaning intensification or strengthening. Minorsky translated it as firmness, meaning everything in tip-top shape. The second characteristic, *pukhtagi*, is a Persian noun derived from the verb *pukhtan*, to cook or ripen. Minorsky translated it as maturity, in the sense that something is done really right with absolute mastery, like a concert pianist. It refers to the clear formation of the letters. The third was *usul*, translated by Minorsky as solidity, referring to the fundamentals or principles. It was one of the four terms used by Ibn Muqla and Yaqut. The final term, *chasni*, another Persian term translated by Minorsky as taste, also means relish, in the sense of leaving a good taste in the mouth.

Dust Muhammad (Thackston, *Album Prefaces*, 9) mentions that one of 'Abd al-Hayy's best students was Mawlana Mu'in Isfizari (c. 1446–1510). In addition to his skill at calligraphy, he was also a minor poet (writing under the pen-name Nami) and a master of the epistolary art during the reign of the Timurid ruler Sultan Husayn (*Elr*, 'Esfezārī'). A specimen in his hand is preserved in one of the albums in Istanbul (TKS, H2161, fol. 182b). According to the various sources, other practitioners of the eastern style of *ta'liq* include Mawlana Darvish 'Abdallah Balkhi, Mir Mansur, and Khwaja Jan Jibra'il. An example of Darvish 'Abdallah's calligraphy dated 917/1511–12 is also preserved in one of the Istanbul albums (TKS, H2161, fol. 182b). Qadi Ahmad's list of calligraphers who followed 'Abd al-Hayy includes Shaykh Muhammad Tamimi, son of Khwaja Jan Tughrayi and head of the correspondence (*insha'*) of the Turkoman chancery, and Mawlana Idris, who wrote the

- correspondence of the Aqqoyunlu rulers Hasan (r. 1357–88), Rustam (r. 1394–7), and Alvand (r. 1497–1500).
140. For the documents, see the list in Richard, 'Divani ou ta'liq,' n. 10. The publication by L. Fekete and G. Hazai, *Einführung in die Persische Paläographie, 101 Persische Dokumente* (Budapest, 1971) of more than one hundred Persian documents, with text, transcription and translation, contains several issued by the Aqqoyunlu ruler Uzun Hasan (r. 1457–78).
141. The top of the document is missing, but probably contained an introductory title or prayer (*du'a*), like the one that the Aqqoyunlu leader sent to Ishaq Pasha in 873/1468 with the typical titles of God, *huwa huwa* (He [is] He), at the top. The opening three lines of Uzun Hasan's letter to his Ottoman contemporary and rival give the titles of the recipient, ending with his name Sultan Bayazid Bek at the end of line three. The titles are often in rhyming pairs, emphasized by the swooping tails of the last letters in the words, which are sometimes piled on top of each other. The elongated stokes of the *ba'* and *kaf* in *bek* single out the recipient's name. The first half of line four contains benedictions for the sultan, and the text proper begins after a short space. The right margin between lines five and six contains a typical *elevatio*, with God's epithets 'the giver, the beneficent' (*wahib mannan*). The two-word phrase is to be read in the middle of line six after the word *hazrat*; its place is marked by the two curved strokes below the line. Similar epithets of God written lower down in the margin, *allahi* and *rabanni ta'ala shanah*, are to be read in the middle of lines eleven and sixteen, but their place is marked either by a space or a curved arc above the line.
- The *ta'liq* script resembles that used in the Ilkhanid document but has even more stylized conventions, as, for example, the hook or squiggle at the end of lines four and five; it stands for the conjunction *kih* (that). Spaces are used to set off important names, as in line nine with Amir Timur, and words are often piled at the end of a line so that the next line opens with an important name or phrase. The last letter of the last word in a line is often extended. The scribe wrote each word on a slope, often without lifting the pen, so that there are many unauthorized connections, particularly with *alif* and final *ha'*, which is regularly connected with *dal* in a circle, as in *karda* at the end of line ten. *Alif* has a hook to the left.
142. By studying these signed works, Bayani, *Ahval wa athar-i khushnivisan*, 1267–75, was able to begin compiling a list of practitioners of the *ta'liq* style. His posthumously edited list includes sixty-seven names, though some of these entries seem to have been lost (it begins with the letter *mim*), and other names are known.
143. A fine poetic specimen penned by him is preserved in the Awqaf Museum in Istanbul; see Bayani, *Ahval wa athar-i khushnivisan*, 1285.
144. Najm al-Din is not mentioned in the standard works on calligraphy, but the Safavid historian Khwandamir included a note about the vizier in his section on Sultan Ya'qub's reign (4:431; Khwandamir, *Habibu's-Siyar Tome Three*, 563). According to Khwandamir, Najm al-Din had permission to sign and seal all Aqqoyunlu edicts beside the royal seal. Of good character and conduct, he had a poetic nature and keen mind and was beloved by all. Examples of his work are preserved in two albums in Istanbul (H2153 and H2160). Bayani (*Ahval wa athar-i khushnivisan*, 1282–2, no. 58) considered them the finest examples of large and small *ta'liq* to survive.

145. Since he gives his epithet as Bukhari, he is presumably not the same person as the 'Abd al-Hayy from Astarabad who perfected the two varieties of *ta'liq*. Signed specimens do suggest that this 'Abd al-Hayy was the father of the renowned Aqqoyunlu scribe Sultan 'Ali Qa'ini, for Sultan 'Ali Qa'ini signed another calligraphic specimen in the same album (TKS, H2153, fol. 84b) as the son of Shaykh 'Abd al-Hayy. Sultan 'Ali Qa'ini came from Khurasan to work at the Aqqoyunlu court at the same time as his father. Their life there was not easy, for Sultan 'Ali Qa'ini had to entreat the ruler to pay him the seven thousand dinars outstanding from his back pay (the letter is preserved in H2153, fol. 98b; Thackston, *Album Prefaces*, 46).
146. Elaine Julia Wright, 'The Look of the Book: Manuscript Production in the Southern Iranian City of Shiraz from the Early 14th Century to 1452,' dissertation (Oxford Ph.D., 1997), ch. 4; Elaine Julia Wright, 'The Calligraphers of Šīrāz and the Development of *Nasta'liq* Script,' *Manuscripta Orientalia* 9, no. 3 (September 2003): 16–26.
147. Specifically, the twelve traits she identified are: (1) Slant. Although the letters *alif*, *kaf*, and *lam* can stand straight in both scripts, in *naskh* they are often pitched slightly to the left, whereas in *nasta'liq* they are pitched slightly to the right. (2) Height. In *nasta'liq*, *alif* and the upright of *kaf* are proportionately shorter. (3) Sweeping cap. In *nasta'liq*, the horizontal stroke of *kaf* is longer and more swooping, reaching closer to the line of script above. (4) Curve of the tail. In *naskh*, *ra'* and *waw* usually have a curved tail, whereas in *nasta'liq* these letters are shorter, straighter, and more sketchily drawn. (5) Joined forms. In *naskh*, connected *dal* has a tail that curves upward, but in *nasta'liq*, it is a straight line. (6) Separate form. In *naskh*, independent *dal* consists of two strokes, a horizontal one that sits on the baseline and another joined at a 45° angle to it, whereas in *nasta'liq*, this letter is less clearly defined and a 90° curve often replaces the sharp angle. (7) Teeth. In *naskh*, the teeth of *ba'*, its sisters, and *sin/shin* are pointed, whereas in *nasta'liq* they are less sharply defined, shorter, and often rounded like bumps. (8 and 9) Elongation of letters and thickness of the line or penstroke. In *nasta'liq*, letters are often elongated and extended, and there is greater variation in penstroke caused by greater movement of the pen. Neither of these features is found in *naskh*. (10) Piling up of the word/adherence to the baseline. In *naskh*, the letters are set on the baseline to create a sense of horizontality, whereas in *nasta'liq* letters and words are piled up to create a hanging quality. (11) Combined effect of traits. In *naskh*, these features combine to create an overall impression of distinct horizontal and vertical axes, whereas in *nasta'liq* these traits combine to show a definite slant from upper right to lower left. (12) General impression of precision and control. *Naskh* is precise and controlled, often conveying tightness and rigidity. In comparison, *nasta'liq* is more casual, with greater freedom and expressiveness on the part of the scribe. *Naskh* gives a sense of being written slowly, with a definite consciousness of each letter's form, whereas *nasta'liq* gives a sense of being written quickly, with great bravado.

In addition, Wright identified three letters that are peculiar to one or other of the two scripts. In *naskh*, medial *kaf* is often written with long parallel strokes that emphasize the horizontality of the script. In *nasta'liq*, both medial and final *ha'* are frequently written like a V. These letter shapes did not figure in her analyses of individual manuscripts.

148. St Petersburg, Saltykov-Schedrin State Public Library, Dorn 406; Oleg F. Akimushkin and Anatol A. Ivanov, 'The Art of Illumination,' in *The Arts of the Book in Central Asia 14th-16th Centuries*, ed. Basil Gray (Boulder, CO, 1979), pl. VII. The author Khwaja 'Imad al-Din 'Alī Faqih al-Kirmanī (d. 1372) was a poet and mystic who directed a Suhrawardi *khanaqah* in his native town of Kirman. He had close links to the contemporary rulers of Shiraz, the Injuids and the Muzaffarids (*EIr*: 'Emād al-Dīn 'Alī Faqīh'). The manuscript was presented by the author's son to the vizier Amir Rukn al-Din Hasan at Shiraz. It also bears the same style of heading used in another manuscript of the poet's works (BN, supp. pers. 745) copied by Mansur ibn 'Alī ibn Muhammad ibn Husayn al-Tusi al-Kashi for his son Rukn al-Din Abu Sa'id Muhammad at the capital (*dar al-mulk*) Shiraz and finished on 2 Muharram 786/25 February 1384 (Richard, *Splendeurs*, no. 27).
149. The document, discovered in the Sena Library in Tehran (no. 1632), was published by Faẓā'ilī, *Ta'lim-i khatt*, 265 and translated by Soudavar, *Art of the Persian Courts*, 37. For more on Ja'far, see below, p.279ff.
150. I have modified the translation slightly from that given by Wright, 'Calligraphers of Shiraz,' 24, only for readability.
151. Richard, 'Naissance du *nasta'liq*.'
152. Blair, 'Artists and Patronage in Late Fourteenth-Century Iran in Light of Two Catalogues of Islamic Metalwork,' *Bulletin of the School of Oriental and African Studies* 48, no.1 (1985): 53-9. Ahmad Shah also left a Koran manuscript dated 766/1364-5 in the Reza 'Abbasi Museum in Tehran. Siraj Husayni Shirazi, calligrapher of Ibrahim Sultan's copy of the *Zafarnama*, roamed even further, writing his calligraphic treatise in Bihar.
153. On this point, see Jane Turner (ed.), *The Dictionary of Art* (London, 1996), 'Islamic art,' III, 4(v): Painted book 'illustration c. 1250-c. 1500.
154. Robert Hillenbrand has pointed out to me that the development of Western italic scripts has something of the same struggle between the desire to stick to the rules and the desire to tweak them, progressively from one generation to the next, and the desire to write a recognizably individual hand within these parameters.
155. The doyenne of the field in exploiting literary sources for calligraphy is, of course, Annemarie Schimmel. See her many studies, ranging from 'Poetry and Calligraphy: Thoughts about their Interrelation in Persian Culture,' in *Highlights of Persian Art*, ed. Richard Ettinghausen and Ehsan Yarshater (Boulder, CO, 1979), 177-212, to Annemarie Schimmel, *A Two-Colored Brocade: The Imagery of Persian Poetry* (Chapel Hill, 1992). For a nuanced view of the interaction between poetry and history, see Julie Scott Meisami, 'The Historian and the Poet: Ravandi, Nizami, and the Rhetoric of History,' in *The Poetry of Nizami Ganjavi: Knowledge, Love, and Rhetoric*, ed. Kamran Talattof and Jerome W. Clinton (New York, 2000), 97-128.
156. The origin and development of the *ghazal* are as controversial as those of *nasta'liq* script. For a balanced overview of the various theories, see *EIr*, 'Gazal.' Whatever its origins, the *ghazal* became the dominant form of love poetry in Shiraz during the lifetimes of its two undisputed masters, Sa'di (d. c. 1293) and Hafiz (d. c. 1390), the same period that saw the development of *nasta'liq*.
157. BL, Add. 18113. On the manuscript, see, most recently, Leñtz and Lowry, *Timur*, no. 13. On the author, see Teresa Fitzherbert, 'Khwājū Kirmānī (689-753/1290-1352): An Eminence Grise of Fourteenth-Century Persian Painting,' *Iran* 29 (1991): 137-52.

158. See, for example, Ivan Stchoukine, *Les Peintures des manuscrits Timûrides* (Paris, 1954), 33, 35.
159. *Ahval wa athar-i khushnvisan*, 441–6. See also Soucek, 'Calligraphy,' 19–20.
160. Mehmet Aga-Oglu, 'The Khusrau Wa Shirin Manuscript in the Freer Gallery,' *Ars Islamica* 4 (1937): 479–81; Soucek, 'Calligraphy,' pl. I. The manuscript is one of the earliest to survive with gold-flecked margins, but it is not known whether these margins were added when the manuscript was copied or when the manuscript was reworked in the Safavid period; see Sheila S. Blair, 'Color and Gold: The Decorated Papers Used in Manuscripts in Later Islamic Times,' *Muqarnas* 17 (2000): 29–30.
161. The latest addition to a long literature on Nizami is Kamran Talattof and Jerome W. Clinton (eds), *The Poetry of Nizami Ganjavi: Knowledge, Love, and Rhetoric* (New York, 2000).
162. For a short biography of Amir Khusraw, see *Elr*, 'Amir Kosrow Dehlavi.'
163. *Gulistan-i Hunar*, 72; *Calligraphers and Painters*, 116.
164. Soucek, 'Calligraphy,' 24.
165. To add variety to the page, Mir 'Ali ibn Hasan used other scripts for headings and subheadings in the manuscript of *Khusraw and Shirin*. He penned headings in a stylized kufic, with very thin strokes, small letter bodies, elongated verticals, and floral decoration at the top of the stems. He penned subheadings in a script whose letters resemble those found in *thuluth*, but with unauthorized connections typical of *riqa*, as in the *waw* that connects to the *ta* of *ta'ala* in the last word in the cartouche.
166. At least one manuscript in the hand of 'Ubaydallah (sometimes misspelled as 'Abdallah; see Thackston, *Album Prefaces*, 10, n. 27) has survived: a copy of the collected poems (*diwan*) of Ahmad Jalayir dated 809/1406–7 (TKS H909). The calligrapher twice signed the manuscript 'Ubaydallah ibn 'Ali *al-katib al-sultani* (the royal scribe), thus confirming the correct spelling of his name. Once again, signatures in manuscripts help correct mistakes made in manuscript transmission.
 This text was, naturally, a favorite of the sultan, and at least two other fine copies were made at the time. One manuscript completed at Baghdad in Ramadan 809/June 1406 (TIEM 2046; Lentz and Lowry, *Timur*, no. 15) has wonderful double-page illumination with headings in stylized kufic, like those found in 'Ali ibn Hasan's copy of *Khusraw and Shirin*. Another copy of Sultan Ahmad's poems (FGA 32.30; Esin Atil, *The Brush of the Masters: Drawings from Iran and India* [Washington, DC, 1978], nos. 1–7) has extraordinary marginal drawings. Its colophon is lost, but two notes added on the last page give the date Ramadan 508, perhaps a misreading for Ramadan 805/March–April 1403, and the name Mir 'Ali. The *nasta'liq* hand resembles the more spacious style used by Mir 'Ali ibn Ilyas.
167. Ja'far signed a calligraphic specimen in Istanbul (TKS H2160, fol. 15a) with the epithet Tabrizi. He trained there, learning not only the hanging *nasta'liq* style but also the traditional round hands. According to the Safavid chronicler Dust Muhammad (Thackston, *Album Prefaces*, 8), Ja'far learned the classic six scripts from Shams al-Din Qattabi, whose line of tutelage goes back to the fourteenth-century master 'Abdallah Sayrafi. Examples of *thuluth*, *naskh*, and *muhawraq* signed by Ja'far in one of the albums in Istanbul (TKS, H2153, fols. 27a, 58b and 160b) bear out this assertion.

- Signed and dated works by Ja'far, whose title was Mawlana Farid al-Din, range over a decade from a manuscript of the collected poems of Hasan Dihlavi copied in 825/1421-2 (Tehran, Majlis Library) to a miscellany copied in 835/1431-2 (CBL 122); see Bayani, *Ahval wa athar-i khushnivisan*, 114-23.
168. Three of the most famous are: (1) a copy of Sa'di's *Gulistan* dated 830/1426-7 (CBL, ms. 119; see Arberry, Minovi, and Blochet, *The Chester Beatty Library: A Catalogue of the Persian Manuscripts and Miniatures*, no. 119; Lentz and Lowry, *Timur*, no. 41); (2) a copy of Firdawsi's epic *Shahnama* dated 833/1429-30 (Tehran, Gulistan Palace Library, no. 61; facsimile edition, *An Album of Miniatures and Illuminations from the Bâysonghori Manuscript of the Shâhnâma of Ferdowsi Completed in 833 AH/AD 1430 and Preserved in the Imperial Library, Tehran* [Tehran, 1971]); and (3) a copy of Nasrallah Abu Ma'ali's animal fables *Kalila and Dimna* dated 834/1431 (TKS H362; Basil Gray (ed.), *The Arts of the Book in Central Asia: 14th-16th Centuries* [Boulder, CO, 1979], fig. 92 and pls. 47 and 49).
 169. H2153, fol. 98a; Thackston, *Album Prefaces*, 43-6; Serge Tourkin, 'Another Look on the Petition ('*Arđadāšt*) by Ja'far Bâysunguri Addressed to his Patron Bâysungur b. Šāhruh b. Timūr,' *Manuscripta Orientalia* 9, no. 3 (September 2003): 34-8. The document is a progress report from Ja'far to his patron Baysunghur and can be dated c. 1430 as it describes several manuscripts in progress. For example, it opens by mentioning a copy of the *Gulistan*, presumably the one discussed here (Figure 7.16), as being illustrated by Mir Khalil, head painter in the atelier, and repaired by several other people. The document also mentions that Ja'far had finished transcribing three and a half sections of a *Shahnama* manuscript, presumably the one dated 833/1429-30. The report also informs us that the royal painters and calligraphers were housed in a special building within the palace precinct and shows the range of work these artists were expected to do. Calligraphers, not surprisingly, designed inscriptions. More unusual are the references to decorated saddles, wall paintings, and tents for which the painters were also responsible.
 170. CBL, P119; Lentz and Lowry, *Timur*, no. 41; Robert Hillenbrand, 'The Message of Misfortune: Words and Images in Sa'di's *Gulistan*,' in *Silk and Stone, the Art of Asia*, vol. 3, ed. Jill Tilden, Hali Annual (London, 1996), 32-45.
 171. Faẓā'ilī, *Atlas-i khatt*, 448-50; William Hanaway and Brian Spooner, *Reading Nasta'liq: Persian and Urdu Hands 1500 to the Present* (Costa Mesa, CA, 1995), 3.
 172. Ja'far's other pupils included his eldest son Ja'far Khalifa, Shaykh Mahmud nicknamed *zarin qalam* (golden pen), and 'Abdallah Tabbakh (also a master of the classic scripts; see above, note 124). For Azhar's biography and a list of his works, see Bayani, *Ahval wa athar-i khushnivisan*, 68-74, no. 111.
 173. One of Azhar's first works to survive is a manuscript of 'Imad Faqih's collected works penned for Baysunghur in Dhu'l-Hijja 834/August-September 1431. Azhar's career may have started even earlier, although the manuscript of Nizami's *Khusraw and Shirin* (Manchester, Rylands Pers. 6; B. W. Robinson, *Persian Paintings in the John Rylands Library: A Descriptive Catalogue* [London, 1980], nos. 550-4) dated 24 Rabi' II 824/28 April 1421 is probably not his hand. The script does not resemble Azhar's work, the date seems to have been altered, and the paintings clearly belong to the early sixteenth century. Azhar had an extremely long career and left many signed specimens of calligraphy

- and manuscripts. His last known work is a manuscript containing the *Khamsas* of Nizami and Khusraw Dihlavi done at Isfahan in 877/1472–3 (Lahore, Punjab University).
174. Thackston, *Album Prefaces*, 10.
 175. Lentz and Lowry, *Timur*, no. 62.
 176. Biographies in Bayani, *Ahval wa athar-i khushnivisan*, 241–6, and Turner, *DoA*, 'Sultan 'Ali Mashhadi.'
 177. Qadi Ahmad, *Gulistan-i Hunar*, 64–78; Qadi Ahmad, *Calligraphers and Painters*, 106–25.
 178. Other manuscripts penned by Sultan 'Ali include a copy of Sa'di's *Gulistan* transcribed in 891/1486 (Art and History Trust Collection on loan to the Freer and Sackler Gallery of the Smithsonian Institution; see Lentz and Lowry, *Timur*, no. 157; Soudavar, *Art of the Persian Courts*, no. 36) and one of the companion work, Sa'di's *Bustan* (Orchard), completed in Rajab 893/June 1488, the only manuscript with illustrations undisputedly by Bihzad, the master of Persian painting (Cairo, DK, Adab Farsi 22; Lentz and Lowry, *Timur*, no. 146). The *Mantiq al-Tayr* is in the Metropolitan Museum of Art (63.210); its paintings have been removed and are often discussed separately. See, for example, the issue of the *Bulletin of the Metropolitan Museum of Art* 25, May 1967, with articles by Marie Lukens Swietochowski on the fifteenth-century miniatures and Ernst Grube on the seventeenth-century ones. See also Marie Lukens Swietochowski, 'The Historical Background and Illustrative Character of the Metropolitan Museum's *Mantiq al-Tayr* of 1483,' in *Islamic Art in the Metropolitan Museum of Art*, ed. Richard Ettinghausen (New York, 1972), 39–72. For the corrected date of the manuscript, see Assadullah Souren Melikian-Chirvani, 'Khawāje Mīrak Naqqāsh,' *Journal Asiatique* 276 (1988): 97–146. The manuscript itself has not often been described, although pages from it are often reproduced, as on the covers and no. 43 of Annemarie Schimmel, 'Islamic Calligraphy,' *The Metropolitan Museum of Art Bulletin* 50, no. 1 (Summer 1992).
 179. See list in Swietochowski, '*Mantiq al-Tayr*.'
 180. These four paintings can be dated c. 1600 on the basis of their style and the signature of the artist Habiballah al-Mashhadi on the one showing the conference of the birds (fol. 11b). The paintings in the manuscript were not done sequentially: the last four are contemporary with transcription, but the first four were added later. We do not know why.
 181. TKS, H762; Ivan Stchoukine, 'Les peintures turcomanes et safavies d'une *Khamseh* de Nizāmī, achevée à Tabriz en 886/1481,' *Arts Asiatiques* 44 (1966): 1–16; Ivan Stchoukine, *Les Peintures des manuscrits de la 'Khamseh' de Nizami au Topkapi Sarayı Müzesi d'Istanbul* (Paris, 1977), no. 13; Lentz and Lowry, *Timur*, 244–5 and figs. 88–90. The colophon on folios 316b–317a is transcribed and translated in Thackston, *Album Prefaces*, 50, and illustrated in Lentz and Lowry, *Timur*, fig. 88.
 182. On Anisi, whose real name is 'Abd al-Rahim ibn 'Abd al-Rahman Khwarazmi, see Bayani, *Ahval wa athar-i khushnivisan*, 384–8, no. 533. Dated examples of 'Abd al-Rahim's work range from a copy of the collected poems of Hafiz dated 864/March–April 1460 to a copy of the calligrapher's own collected poetry dated 899/1493–4, both formerly in Bayani's private collection.
 183. Bayani, *Ahval wa athar-i khushnivisan*, 378–81, no. 529. He was a contemporary of Azhar and Sultan 'Ali Mashhadi. Dated manuscripts in

'Abd al-Rahman Khwarazmi's *nasta'liq* hand range over thirty years, from a copy of Nizami's *Khamasa* finished in 839/1435-6 (BL, Or. 12856, fol. 319b; Soucek, 'Calligraphy,' fig. 13) to a copy of a *tarji' band* (strophic poem with a refrain) finished on 18 Dhu'l-Qa'da 866/14 August 1466.

'Abd al-Rahman Khwarazmi's copy of Nizami's *Khamasa* contains 368 small folios, with eight paintings, all but one of them practically the full size of the page. To judge from the style of the paintings, the manuscript was produced in Shiraz. The illumination is quite distinctive as well. Akimushkin and Ivanov ('Illumination,' 38) noted, for example, that this is the first known manuscript in which the wide outer border is bisected by a triangular medallion, sometimes with a scalloped edge, in the center of the vertical part of the border.

Compared to the eastern standard established by Ja'far, the *nasta'liq* penned by 'Abd al-Rahman Khwarazmi is sharper and more impulsive, with some letters crowded together and others exaggerated. Exaggerated and uneven strokes had already been a feature of Shirazi calligraphy in earlier times, as, for example, in the copy of the *Shahnama* transcribed at Shiraz in 772/1371 under the Muzaffarids (Istanbul, TKS, H1511; Basil Gray, 'The School of Shiraz from 1392 to 1453,' in *The Arts of the Book in Central Asia 14th-16th Centuries*, ed. Basil Gray [Boulder, CO, 1979], fig. 71). The variation between thick and thin can be traced even further back to the sloppy hand used under the Injuids in the early fourteenth century.

184. Anisi's brother was 'Abd al-Karim; for a biography, see Bayani, *Ahval wa athar-i khushnvisan*, 409-11, no. 569.
185. In addition to a few pieces by Yaqut (e.g., H2160, fols. 5a and 82a dated 691/1291 and 695/1295-6) and other early fourteenth-century calligraphers such as 'Abdallah Sayrafi, these two albums contain many samples penned by calligraphers who worked for both the Qaraqoyunlu and Aqqoyunlu, especially 'Abd al-Rahman Khwarazmi's sons 'Abd al-Rahim and 'Abd al-Karim. Many are dedicated to the Turkoman sultans, such as the eulogy written for the Aqqoyunlu Sultan Ya'qub (H2153, fol. 142v). The latest piece of calligraphy is dated 917/1511-12 (H2160, fol. 55v), and so the albums must have been assembled after that date. Like H2152, these two albums may have been acquired by the Ottomans after the battle of Chaldiran, for they too bear the seal of Selim I. Hence, these two were first called the Fatih (conquerer) albums, but were then renamed the Ya'qub Beg albums because of the many pieces associated with him in them. On the problems of these albums, their names, and their contents, see the various papers from the tenth Colloquium on Art and Archeology held by the Percival David Foundation in London in June 1980 and published as the first volume of *Islamic Art* (1981), especially Çağman, 'Four Istanbul Albums.'; Tanındı, 'Two Istanbul Albums'. Confusingly, the name 'Fatih' was also applied to H2152, as well as to another album in the Topkapı Palace (H2154) that was clearly made for the Safavids in 951/1544. Hence, it seems clearer, if duller, to cite these albums by number.
186. E.g., a page of quatrains, H2531, fol. 32a; Soucek, 'Calligraphy,' fig. 14.
187. Cited in Bayani, *Ahval wa athar-i khushnvisan*, 255. See also Soucek, 'Calligraphy,' 29-30.
188. H2153, fol. 137a; Thackston, *Album Prefaces*, 47-8.
189. Qadi Ahmad, *Gulistan-i Hunar*, 26 and 59; Qadi Ahmad, *Calligraphers and Painters*, 65 and 125.

190. The document is a decree bound into a multi-volume manuscript in the Topkapı Library published by Priscilla P. Soucek and Filiz Çağman, 'A Royal Manuscript and its Transformation: The Life History of a Book,' in *The Book in the Islamic World: The Written Word and Communication in the Middle East*, ed. George N. Atiyeh (Albany, 1995), 179–208. On the problems of interpreting it, see Blair, 'Color and Gold,' 32–3.
191. Robinson, *Rylands Library*, nos. 405–23.

Rectilinear and Curvilinear Scripts in Egypt and Syria under the Mamluks

THE MAIN RIVALS of the Mongols and Turkomans who controled the eastern Islamic lands in the later middle period were the Mamluks (literally, possessed people or slaves), the succession of sultans who ruled Egypt, Syria, and the Hijaz from 1250 to 1517. Their two and a half centuries of rule is typically, though somewhat artificially, divided between two lines: the Bahris, Qipchak Turks from the steppes of southern Russian who originally had their barracks on the island of Rawda in the Nile (al-Bahr); and the Burjis, Circassian Turks from the northern Caucasus who were quartered in the citadel (*burj*). Once acquired as slaves, the majority of the Mamluks went into the royal barracks in Cairo, where they were trained in the arts of warfare, instructed in the rudiments of Islam, and taught to speak and write Arabic. They were then manumitted and given positions of responsibility in the army or royal household, and one of them was ultimately elected sultan.

Following the Mongol conquest of Baghdad in 1258, the Mamluk capital at Cairo became the main city of the Arab world. From there the Mamluks sponsored a vast array of artistic projects – hundreds if not thousands of charitable foundations with their fittings and furnishings, ranging from paper Koran manuscripts to stunning metalwares, glass, woodwork, and textiles, many proudly decorated with an emblem of ownership (*tughra*). Fancy books played a smaller role than they did in the eastern Islamic lands, as the Mamluks, who maintained Turkish as the *lingua franca* of the elite, seem to have been more interested in the arts of politics and war. Much of their visual art is conservative, its aesthetic quality generally reckoned secondary to its quantity and the plethora of contemporary sources about it.¹ The Mamluks maintained a vast bureaucracy, fastidiously recording information about all its operations, and calligraphy was no exception. Not suprisingly, this copious output has been the basis for a long tradition of scholarship on the subject.²

The best-known Mamluk chronicler to write about calligraphy, Shihab al-din Abu'l-'Abbas Ahmad al-Qalqashandi (d. 16 July 1418), exemplifies the viewpoint and information these sources provide. Born in 1355 to a family of scholars at Qalqashanda, a small town north of Cairo, he studied literature, Tradition, and law at Alexandria.

In 1389 he became a secretary in the Mamluk chancery (*diwan al-insha'*), serving as *katib al-dast*, one of the secretaries who accompanied the secretary-of-state (*katib al-sirr*) as he sat with the sultan to dispense justice. In addition to works on law and *adab* (culture), al-Qalqashandi wrote about the secretarial arts. His stupendous seven-volume *Subh al-a'sha fi sina'at al-insha* (Dawn of the Night-blind), completed in 1412, is a detailed conspectus of the theoretical sciences and practical skills required by a secretary concerned with official correspondence. Intended to be encyclopedic and exhaustive, it was the culmination of the secretarial manuals and encyclopedias written during the Mamluk period and indeed of the whole literature on the arts of writing (*adab al-katib*).³ Al-Qalqashandi, though the most famous and most exhaustive, is only one of many contemporary sources who wrote about Mamluk calligraphy.⁴

Along with these written descriptions, we have a host of extant examples. Many fine manuscripts, mainly Koran codices, survive from this period, and the calligraphy used in at least one of them – the Koran manuscript made for Baybars (Figure 8.13) – is even described in several Mamluk sources.⁵ The first album of calligraphic specimens to survive from the Arab world also dates from the very end of this period.⁶ According to the colophon, the very large (47 × 30 cm) but slim volume was compiled by Muhammad ibn Hasan ibn Muhammad ibn Ahmad ibn 'Umar al-Tayyibi al-Shafi'i on Wednesday 12 Rajab 908/11 January 1503. The ex-libris on the opening page shows that he compiled the work for the library (*khizana*) of the last Mamluk sultan, Qansawh al-Ghawri (r. 1501–16). Al-Tayyibi's 94-page text contains an account of the method (*tariqa*) of writing descended from Ibn al-Bawwab down to the author, who credits himself with inventing two scripts.⁷ The text opens with twelve pages illustrating the ways to make the individual letters according to the method of Ibn al-Bawwab, which, as elsewhere, are formed of dots and measured proportionally. Pages 16–32 of the treatise recount the history of writing and the methods of nibbing the pen. This preface is followed by sixty-two pages with samples of the individual scripts. The precedence of illustration over commentary is clear not only from length (the finely penned illustrations take up two-thirds of the volume) but also from breadth (the illustrations contain samples of nineteen scripts, but the preface lists only seventeen). This book is not a how-to manual; it was a visual encomium designed to display the calligrapher's prowess and win the favor of the sultan, who himself was interested in *adab* and a generous patron of the arts.⁸

As part of their bureaucratic propensity for taxonomy, Mamluk authors classified scripts in several ways. Although they were aware of the six scripts (*al-aqlam al-sitta*) codified in the tradition of Ibn Muqla, Ibn al-Bawwab, and Yaqut, Mamluk authors did not usually group the scripts in pairs, as writers in Iran and the East did. Instead, Mamluk authors typically divided the scripts in rectilinear and curvilinear groups. Al-Qalqashandi and other Mamluk sources juxtaposed

straight scripts, characterized by the flatness (*bast*) and rigidity (*yabs*) of the descenders or sublinear strokes (*'ariqat*, *ta'riq*) to round ones, marked by curvature (*taqwir*) or softness (*lan*). Other authors refer to this juxtaposition as *al-aqlam al-yabisa* (the dry scripts) and *al-aqlam al-murattaba* (the wet scripts). This division into rectilinear and curvilinear accorded with function. Book hands (*khutut al-warraqi*), which included the sub-category of Koranic hands (*khutut al-masahif*), were usually rectilinear, whereas chancery hands (*khutut al-kuttab*) were usually curvilinear.

Mamluk authors further designated the scripts classified in each of these two categories. For example, according to Ibn Basis (d. 1317), one of the earliest writers on the subject, the rectilinear – the first basis (*asl*) of writing – comprises *muhaqqaq* script and its derivatives, *rayhan* and *naskh*, and the curvilinear – the second basis – comprises *thuluth* and its relatives, *tawqi'* (also given in the plural as *tawaqi'* and *tawqi'at*) and *riqa'*. The rectilinear group has *alif-lam al-warraqiyya* (a connected *lam-alif* written as a single stroke with a loop at the bottom), a feature not found in the curvilinear group. This division differs from the one used by many theoreticians and practitioners from the Iranian or Turkish lands, who include *naskh* in the curvilinear group, and indeed the *naskh* used in the Mamluk domains is typically more upright than the one used further east.

Most scripts came in various sizes. Based on the illustrations in al-Tayyibi's album, Adam Gacek delineated five sizes of script, with *alif* ranging from 5 to 0.5 cm.⁹ Size affected angularity: the larger the script, the straighter its descenders; the smaller the script, the more rounded its sublinear curves. Two other features are connected with size: the serif or hook (*tarwis*) and the closed head-loops or 'blinded eyes' of some letters (a feature called *tams*, literally effacement): the smaller the letter, the less opportunity of adding a serif and the more chance of filling in the loop.

Mamluk sources also grouped scripts as principal (*asl*) and derived (*far'*). Al-Nuwayri and al-Qalqashandi listed five fundamental scripts: *muhaqqaq*, *naskh*, *riqa'*, *tawqi'at*, and *thuluth*. Al-Athari, however, gave seven fundamental scripts (*thuluth*, *riqa'*, *muhaqqaq*, *naskh*, *tawqi'*, *waddah*, and *tumar*) and seven derived ones (*ash'ar*, *ghubar*, *rayhan*, *manthur*, *khafif al-thuluth*, *hawashi*, and *musalsal*). These fourteen, according to al-Ziftawi, came in three varieties: large (*thaqil*), small (*khafif*), and mixed (*muwallad*), thereby bringing the total number of scripts to forty-two.

The calligraphy of the Mamluk period is treated here according to the rubrics used by the chroniclers themselves: first the rectilinear group (*muhaqqaq*, *rayhan*, and *naskh*) and their derivatives, then the curvilinear group (*thuluth*, *tawqi'*, and *riqa'*) and their derivatives, and finally several examples of scripts that can be written with characteristics of either group, notably *ash'ar*, *tumar*, and *ghubar*.

Rectilinear scripts

For the Mamluks, the primary rectilinear script was *muhaqqaq*.¹⁰ The name literally means exact or perfectly executed, and Mamluk chroniclers saw the script in this way as the best representative of book scripts, used for the finest codices, notably copies of the Koran. According to the chroniclers, *muhaqqaq* was written with a straight *alif* that measures nine or ten dots high. It is therefore more elongated than the classical Iranian style of *muhaqqaq*, in which *alif* measures eight dots. The stems of the letters in *muhaqqaq* should have a hook or serif, and their 'eyes' or loops should be left unfilled.

Although *muhaqqaq* came to be the prime script for copying the Koran in the Mamluk period, this was not always the case. The earliest Mamluk rulers seem to have been preoccupied more with defining territory and setting up an administration than with commissioning fine Koran manuscripts for their charitable foundations. So far, none can be associated with the grand complexes founded by the early Mamluk rulers, ranging from the vast new congregational mosque established by Sultan Baybars al-Bunduqdari (r. 1260–77) outside the city's northern walls to the funerary complex established by Sultan Qalawun (r. 1279–90) on the site of the former Fatimid palace.¹¹ The first Koran manuscripts to survive from the Mamluk period date only from the first decades of the fourteenth century, and they were not copied in *muhaqqaq*,¹² which was adopted as text script for Koran manuscripts only in the 1320s during the third reign of the sultan al-Nasir Muhammad (r. 1293–1341 with interruptions).

The calligrapher most closely associated with the first Koran manuscripts penned in *muhaqqaq* for the Mamluks is Ahmad al-Mutatabbib (the amateur physician or quack).¹³ He has left more signed manuscripts than any other calligrapher from the Mamluk period, but he passes unmentioned in the sources, perhaps because he was not a member of the bureaucracy. One of his Koran manuscripts in Cairo is especially important because of its informative colophon, which gives his full name (Ahmad ibn Kamal ibn Yahya al-Ansari al-Mutatabbib), the date he completed the manuscript (Sha'ban 734/April–May 1334), and the place he worked (Cairo).¹⁴ This is the first Mamluk Koran manuscript to mention Cairo. The manuscript also includes elaborate notation for use in recitation and a long explanatory appendix on the vocalization used in it.¹⁵ On the top line of the closing page, for example, the three *alifs* are marked with green dots to indicate *hamzat al-wasl*, and the unwritten *alif* in *allah* is added, awkwardly, in red. The use of these green dots connects this manuscript to the *maghribi* tradition, in which scribes had used such punctuation for centuries.¹⁶

In his Koran manuscripts (Figure 8.1), Ahmad al-Mutatabbib continued some of the innovations introduced under Yaqut and his followers and brought to Cairo at the beginning of the century.¹⁷ The Mamluk calligrapher typically used very large sheets (51 × 36 cm) of



Figure 8.1 Closing page containing Sura 113 from a single-volume Koran manuscript with eleven lines per page transcribed by Ahmad al-Mutatabbib in Cairo in the 1330s.

This manuscript exemplifies the type of *muhaqqaq* introduced in Cairene Koran codices by 1320. Its calligrapher Ahmad al-Mutatabbib used an elaborate system of vocalization, which he explained in an appendix to one manuscript dated Sha'ban 734/April–May 1334, an interest in content over form that is typical of the Mamluk period.

half-*baghdadi* size, the size that Ahmad al-Suhrawardi had used (Figure 7.2), but with more lines per page (regular pages in the Mamluk manuscript typically have eleven lines of text rather than the five used in the imperial Ilkhanid copies). Ahmad al-Mutatabbib therefore used less paper (some 400 folios), and so his manuscripts could be bound as single-volume codices, unlike the thirty-volume sets typical of Iraq and Iran.¹⁸ The illumination in Ahmad al-Mutatabbib's manuscripts follows the style introduced to Cairo at the beginning of the century, with stylized kufic as display script (as here, with the name of the *sura*, the place of revelation, and the number of verses) and decoration of scrolling palmettes against a hatched ground.¹⁹

The script in Ahmad al-Mutatabbib's manuscript sets it apart from other Koran manuscripts made for the Mamluks at the beginning of the fourteenth century: he used a large *muhaqqaq*, the primary rectilinear script mentioned by the Mamluk sources and the script used for the majestic multi-part Koran manuscripts made for the Ilkhanids since the beginning of the fourteenth century (Figure 7.2). Ahmad al-Mutatabbib's *muhaqqaq*, however, is not particularly skillful. His ink is often watery and varies in intensity, as in the *dal* of *hosada*, the last word of text on this page. His strokes are bumpy, not smooth, as shown by the wobbly *alifs* (particularly the red ones indicating unwritten *alif*), the awkward slope of the *alif-lam* prefix, and the irregular ends to the long sweeping tails of descending letters in which the tips project like hairs from the thicker strokes. His spacing is irregular. Many letters are crowded, but sometimes he left too much space between letters or words. In the manuscript dated 734/1334, for example, the gap between the opening words of the *sura*, *qul* and *a'udhu*, is so large that the illuminator had to add a hatched vertical bar that resembles an *alif* and interrupts the flow of the calligraphy (Figure 8.1a).²⁰ Ahmad al-Mutatabbib was competent, but no more.

During the second half of the fourteenth century, a larger and bolder type of *muhaqqaq* became popular in the Mamluk domains. In his calligraphic album al-Tayyibi called this script *jalil al-muhaqqaq* (large *muhaqqaq*) and illustrated it penning three lines per page and an *alif* measuring 5 cm.²¹ This large script was typical for the opening pages of enormous Koran manuscripts made for the Mamluk elite. At least nine examples have survived, eight of them endowed to pious foundations by Sultan al-Ashraf Sha'ban (r. 1363–77), his mother Khwand Baraka, or his *mamluk* Arghun Shah and preserved in the Dar al-Kutub in Cairo.²² These manuscripts are typically copied on bifolios of full *baghdadi* size, twice the size used by Ahmad al-Mutatabbib,²³ but they usually have the same number of lines per page (eleven) and thus the same number of folios (some 300–400) bound in a single volume.²⁴ The text is copied in a stately *muhaqqaq* in black ink with stylized kufic as display script and opening pages set off in an even grander *muhaqqaq*, as in this manuscript endowed by Sultan Sha'ban to his complex on the citadel (Figure 8.2).



Figure 8.1a

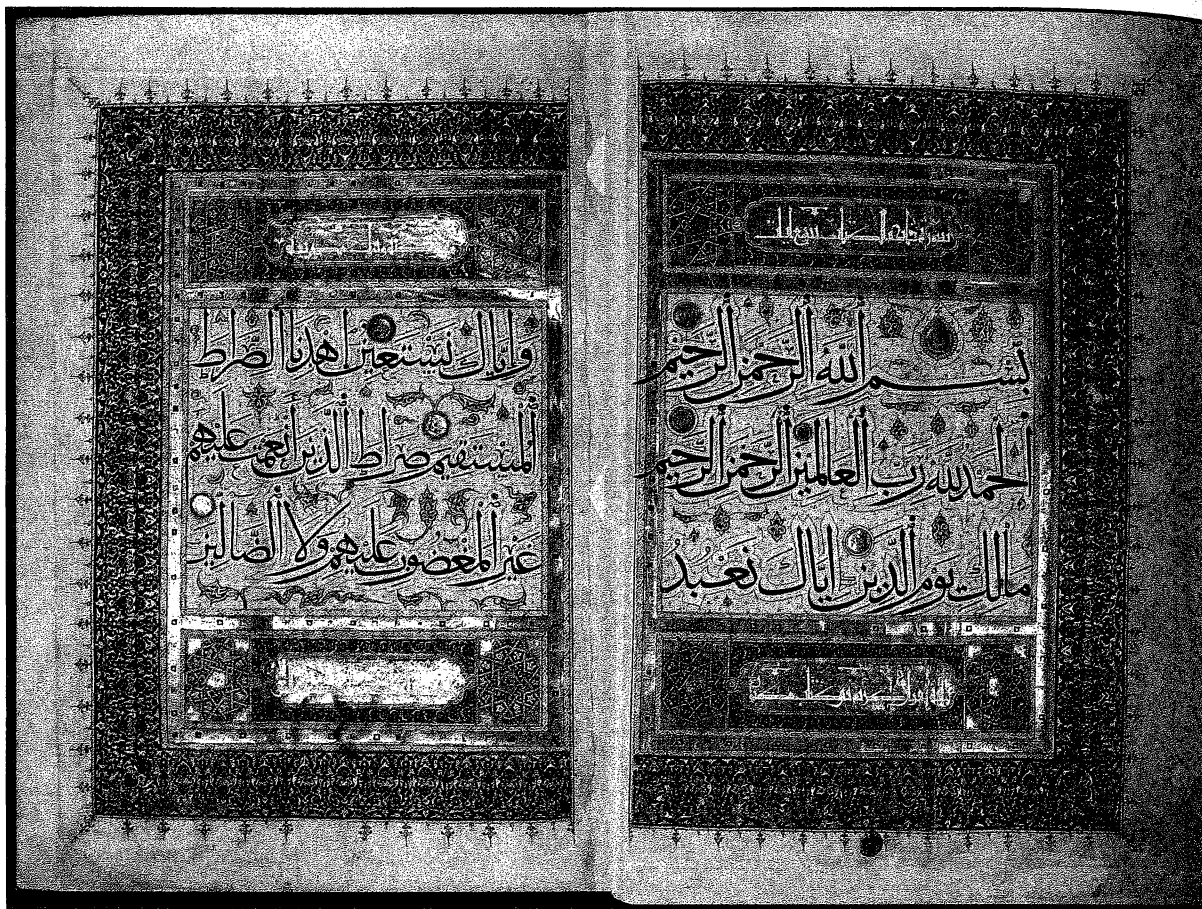


Figure 8.2 Opening double page with the Fatiha (Sura 1) from a single-volume Koran manuscript with thirteen lines per page transcribed by 'Ali ibn Muhammad al-Muktib al-Ashrafi, illuminated by Ibrahim al-Amidi, and finished on 15 Muharram 774/17 July 1372.

This manuscript, endowed by Sultan Sha'ban to his complex on the citadel in 1372, belongs to the group of enormous Koran manuscripts penned in the third quarter of the fourteenth century. In contrast to the type with frontispieces in star-polygon format, this subgroup with illumination signed by Ibrahim al-Amidi has the text of Sura 1 spread over the two pages. To pen it, the calligrapher used a particularly large form of *muhaqqaq* known as *jalil al-muhaqqaq* (large *muhaqqaq*), twice the size of the script used on regular pages and with *alif* measuring some 5 cm.



Figure 8.2a

Based on the style of illumination, David James divided these large Koran manuscripts associated with al-Ashraf Sha'ban into two subgroups: those with frontispieces organized as star polygons and those associated with the illuminator Ibrahim al-Amidi, who signed the decoration (*tadhib*) in this manuscript copied by 'Ali ibn Muhammad al-Muktib al-Ashrafi.²⁵ The color of ink and the organization of the opening pages differ in these two groups as well. In the star polygon group, the opening pages of text, written in gold, follow the traditional format, with Sura 1 on the right page and the beginning of Sura 2 on

the left. In the Ibrahim al-Amidi group, by contrast, the text of Sura 1, written in black outlined in gold, is spread out so that it fills the double-page spread, a format that was to become standard in later times. To do so, the calligrapher had to reduce the number of lines of text from the five used in frontis- and finispieces of the star polygon group to three and consequently increase the size of the script so that *alif* measures over 5 cm, the size illustrated by al-Tayyibi and twice the size of the script used for the main part of the text.²⁶

The calligrapher of this splendid manuscript, 'Ali ibn Muhammad, bears the epithets *al-muktib*, indicating that he was a teacher of writing, and *al-ashrafi*, showing that he belonged to the entourage of Sultan al-Ashraf Sha'ban.²⁷ 'Ali ibn Muhammad's script is very good, if not great, and his *jalil al-muhaqqaq* owes its impression as much to size as to control. The tall and strong verticals march boldly across the page. The curved *lam-alif al-warraqiyya* (Figure 8.2a), the single-stroke combination typical of rectilinear scripts, adds a sweeping diagonal. But the *alifs* lean unevenly: some are upright, some slightly tilted to the left, though none to the right, and the script lacks the tautness of the finest masters like Ahmad al-Suhrawardi (Figure 7.2).

Rather than the calligraphy, the most striking feature of this manuscript, and the associated group, is the expanded decoration, executed in a vibrant palette and often set against a black ground. The predominance of decoration over calligraphy is clear on these pages: the gold ruling covers the tail of *nun* in *al-dallin*, the last word of the *sura* on the bottom left (Figure 8.2a). This format contrasts to that in the Koran penned by Yaqut, where the rulings skirt the text. Such lavish illumination must have taken a long time to execute, perhaps as much as four years, the difference between the date of transcription (15 Muharram 774/17 July 1372) and the date of the endowment notice (Muharram 778/May–June 1376), in which al-Ashraf Sha'ban stipulated that the manuscript be read in his funerary complex known as the Ashrafiyya.²⁸ The illuminator's major role is also signaled in an elaborate colophon, a rare occurrence in Mamluk times when illuminators were typically anonymous. His epithet al-Amidi suggests that he hailed from the town of Amid/Diyarbekr in Anatolia, where several schools of manuscript production flourished under the Beyliks (see Chapter 9). The wealth of Cairo must have attracted foreign artists, who introduced new ideas, including this colorful style of illumination, which seems to have been more important than the calligraphy it accompanies.

The Mamluks' desire (and sufficient funding) for enormous size continued through the end of the century, as shown by an enormous single-volume copy of the Koran (Figure 8.3) transcribed in *muhaqqaq* in 801/1398–9 for Muhammad ibn Batut al-Salihi al-Dimishqi.²⁹ According to the colophon, it was transcribed by 'Abd al-Rahman ibn Yusuf known as Ibn al-Sa'igh 'with one pen [*qalam*] in 60 days.'³⁰ He was a well-known calligrapher (d. 845/1441–2): author of a treatise on



Figure 8.3 Page containing Sura 65:1-4 from a single-volume Koran manuscript with eleven lines per page transcribed in 801/1399 by 'Abd al-Rahman ibn Yusuf known as Ibn al-Sa'igh.

This is the largest Koran manuscript to survive from Mamluk times. According to the colophon, it was transcribed by Ibn al-Sa'igh 'with one pen in sixty days.' It is written in a large, clean *muhaqqaq* with eleven lines per page. Titles are penned in *thuluth*, unlike most Koran manuscripts from this period which have titles in a stylized kufic.

calligraphy and copyist of several Koran manuscripts in different scripts, including one in *naskh* dated Shawwal 813/January–February 1411 made for the library of Faris al-Saqi al-Khazindar, an official of Sultan Faraj ibn Barquq, and another in Cairo dated 814/1411–12.³¹

This Koran manuscript by Ibn al-Sa'igh, the largest copy known to have been made for the Mamluks, is transcribed on enormous sheets that measure over a meter high, slightly larger than the full *baghdadi* ones used in the other manuscripts transcribed for al-Ashraf Sha'ban and his court. These sheets, nevertheless, pale in comparison to the elephantine ones used for contemporary copy made for the Timurids (Figure 7.11), which are one and a half times larger. The Timurids probably made these enormous sheets using floating molds, which render only one side of the sheet smooth enough for calligraphy. The full-*baghdadi* size used for these enormous Mamluk Koran manuscripts represents the limit of traditional technology using dipped molds, but produces paper that is smooth and suitable for writing on both sides. Ibn al-Sa'igh's Koran manuscript therefore resembles standard Mamluk Koran codices, with eleven lines of large *muhaqqaq* script per page and several hundred folios bound as a single volume.

As with its Timurid contemporary, pages from Ibn al-Sa'igh's codex attest to the triumph of calligraphy over illumination. In both cases, the major ornaments in the text are the gold circles separating the verses. Ibn al-Sa'igh added vocalization in black, whereas in the Timurid copy the subtle use of red for markings adds a grace note. The calligraphy in the Timurid manuscript, too, is much finer. Though about three times the size of that in the contemporary Mamluk copy (*alif* in this manuscript measures some 4.5 cm, as opposed to 14 cm in the Timurid copy), the anonymous Timurid calligrapher's hand is smoother and more fluid. His verticals are straight and taut. Ibn al-Sa'igh's hand, by contrast, is bumpier and looser. His verticals sometimes wiggle or taper, and his strokes do not always connect, as in the upper stroke of *kaf* at the end of the first full line of text (Figure 8.3a). His vocalization is larger and heavier, his serifs rounder and fatter than the spikes used in the Timurid copy. Ibn al-Sa'igh's script is also more crowded and more rushed.³²

Mamluk calligraphers continued to use *muhaqqaq* for large Koran manuscripts until the end of the period. In general, these copies are smaller than those made in the late fourteenth century and have good but not great calligraphy and weaker illumination. Abu'l-Fath Muhammad al-Ansari, for example, penned several copies in *muhaqqaq* for important Mamluk patrons in the mid-fifteenth century. One manuscript transcribed in Ramadan 847/January 1444 was endowed by Zayn al-din Yayha, major domo (*ustadar al-'aliyya*) of Sultan al-Malik al-Zahir Sayf al-din Jaqmaq, to his mosque at the Bab al-Khawka in Cairo on 18 Rabi' II 848/4 August 1444.³³ Another transcribed in 858/1454 was penned for the Mamluk sultan al-Malik al-Zahir Abu Sa'id Khushqadam.³⁴ Both are large (the first measures 59 × 42 cm; the second 88 × 61 cm) single-volume manuscripts



Figure 8.3a

written with eleven lines of *muhaqqaq* script on regular text pages and fancy opening and closing double pages. These spreads, the pages most frequently illustrated in the scholarly literature, typically have five lines of *muhaqqaq* surrounded with arabesque scrolls on a red-hatched ground and sandwiched between cartouches of stylized kufic that give the name of the *sura* and the number of verses. The codices were also handsomely set in flapped bindings of dark-brown leather with gold-tooled ornament.³⁵

Muhaqqaq thus became the standard script for Koran manuscripts produced in the Mamluk period. It was so common that al-Tayyibi, writing at the very end of the period, uses the name *masahif* (literally, Koran codices) to designate a medium-size *muhaqqaq*, written with five lines per page and an *alif* measuring 2 cm.³⁶ *Rayhan*, considered in Iran to be the smaller variant of *muhaqqaq*, was not nearly as common in Mamluk times.³⁷ For most Mamluk authors, *rayhan* was only a secondary script.³⁸ Al-Tayyibi did not illustrate it alone, but interspersed it between lines of a larger curvilinear script (Figure 8.4) called *tawaqi* (signatures; the plural of *tawqi*).³⁹ The smaller text in *rayhan* contains a passage by 'Ali ibn Abi Talib, the larger one in *tawaqi* a passage by the Persian pre-Islamic ruler Khusraw Anushirwan. The most notable feature of al-Tayyibi's *rayhan* is the elongated shape and uniform height of the strokes for *fatha* and *kasra*, strokes that resemble those in Ibn al-Sa'igh's manuscript (Figure 8.3). The mixture of sizes and scripts shown by al-Tayyibi, however, was not popular in the Arab lands, nor was *rayhan* common for Mamluk Koran manuscripts.⁴⁰

After *muhaqqaq*, the most common script used for Koran manuscripts in the Mamluk period was *naskh*, the rectilinear script traditionally used for copying. Already at the beginning of the fourteenth century Mamluk calligraphers tried to regularize and monumentalize this script to make it a fitting context for God's word. We can see this in a particularly well-documented Koran manuscript, once bound as a single volume but now dispersed (Figure 8.5).⁴¹ A double page at the end contains decorative medallions, the one on the right with the certificate of commissioning for the library (*khizana*) of the Mamluk sultan al-Nasir Muhammad and the one on the left with the date of completion, Tuesday, 27 Ramadan 713/15 January 1314. Panels above and below say that it was completed at the hands of Shadhi ibn Muhammad ibn Shadhi ibn Da'ud ibn 'Aysha ibn Abi Bakr ibn Ayyub. His lengthy genealogy shows that he was a minor prince of the Ayyubid house of al-'Adil; great-grandson of al-Nasir Da'ud, ruler of Karak (d. 1258); and grandson of al-Zahir Shahdi (d. 1282). The calligrapher is mentioned only briefly in the Mamluk sources: Ibn Hajar al-'Asqalani recorded that Shadhi ibn Muhammad was born in 681/1282 and died suddenly in 740/1341.⁴²

Illuminated pages at the beginning and end of the codex give further information about the team of artists who worked on this manuscript and their hierarchy. Each page bears a tiny inscription

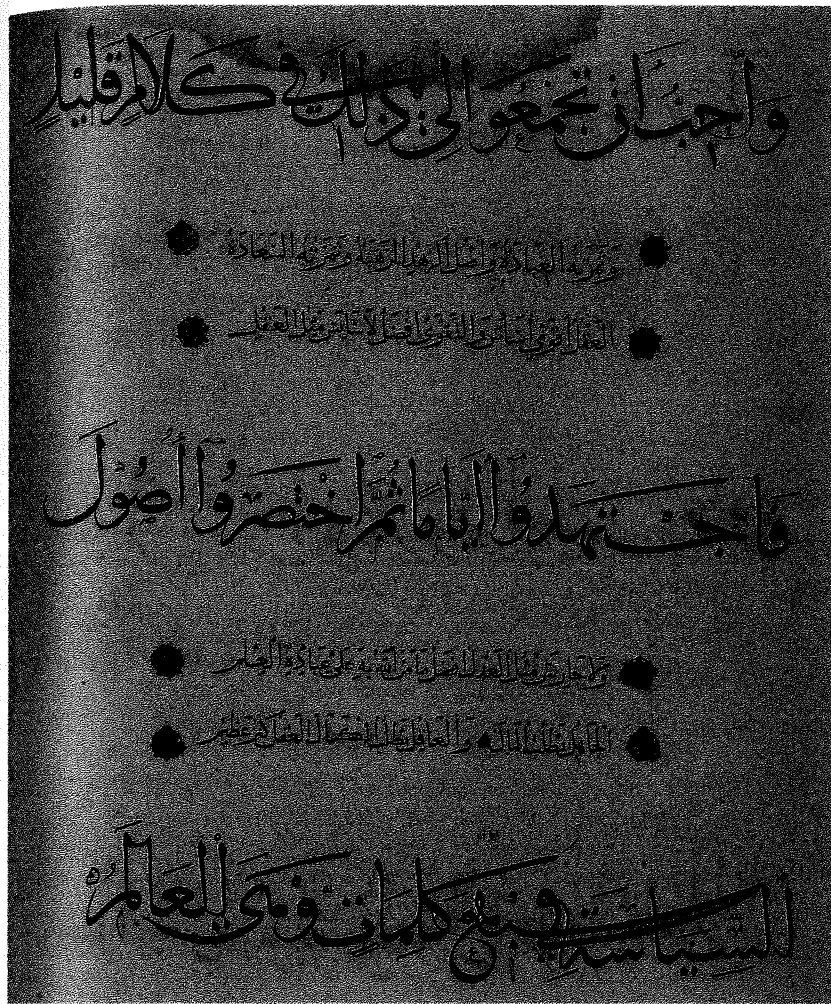


Figure 8.4 Page from the album of calligraphic specimens compiled by Muhammad ibn Hasan al-Tayyibi for the Mamluk sultan Qansawh al-Ghawri in 908/1503 with three lines of the large curvilinear script labeled *tawqi'* alternating with couplets of the smaller rectilinear script labeled *rayhan*.

Al-Tayyibi's page shows a rare example of *rayhan*, which was never popular in the Mamluk lands. It has the same flat terminals as its larger counterpart in the rectilinear group, *muhaqqaq*, and is marked by long, regular strokes for vocalization. *Tawqi'* (here called by its plural, *tawaqi'*), by contrast, belongs to the curvilinear group. Its is related to *thuluth* and has the same curved *alif* that looks like a hockey stick, but has more connected letters. Note also the distinctive sweeping stroke of *ya'* in *fi* in the last line, a form similar to that used in *musalsal*.

written vertically between the gold frame and the marginal hasp. The one on the opening page says that the opening and closing pages were done by Aydughdi ibn 'Abdallah al-Badri, who had been taught by the master Sandal. The one on the last page says that the Koranic text was outlined (*zammaka*) by 'Ali ibn Muhammad, the draftsman (*al-rassam*), known as the left-handed (*al-a'sar*). A decade earlier Aydughdi had worked with the calligrapher Ibn al-Wahid on the Baybars Koran (Figure 8.13), and this inscription shows in the intervening years Aydughdi had advanced from outliner to decorator, gaining his own assistant for outlining, the left-handed draftsman 'Ali ibn Muhammad.⁴³

Two short certificates on the final folio of Shadhi's Koran manuscript show the Mamluk concern with textual accuracy. The first is a statement of authentication declaring that the text is without error. It is signed by Muhammad al-Sarraj al-Muqri, whose epithet

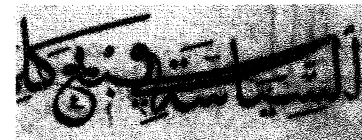


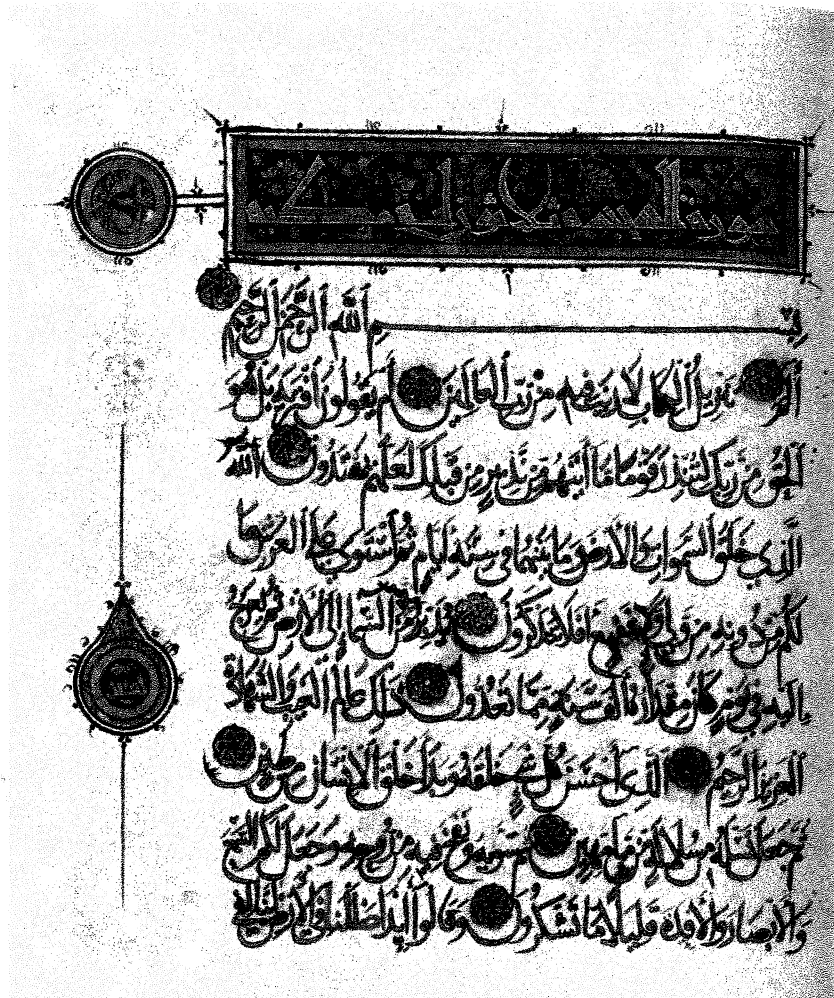
Figure 8.4a

Figure 8.5 Page containing Sura 32:1–10 from a single-volume Koran manuscript with eleven lines per page transcribed by Shadhi ibn Muhammad ibn Shadhi and completed on 27 Ramadan 713/15 January 1314 for the Mamluk sultan al-Nasir Muhammad ibn Qalawun.

This manuscript exemplifies the type of Koran manuscript produced in Cairo at the very beginning of the fourteenth century. It is a single volume of quarter-baghdadi size with many lines of *naskh* per page. Though the patron was royal and the decoration added by a renowned team of specialists, the calligraphy is quite poor: crowded and crooked.



Figure 8.5a



identifies him as a Koran reciter acquainted with the rules of *tajwid*, or perfect pronunciation of the Koran. The second certificate records that the vocalization was checked (*dabata bi-shakl*) by Khalil ibn Muhammad al-Bahnasi, from Bahnasa, south of Cairo. The manuscript contains two sets of vowels, one in gold, probably by the calligrapher Shadhi, and a complementary set in blue, probably the work of the pointer Khalil. In contrast to the Persians, whose manuscripts and calligraphic specimens (*qit'a*) revel in virtuoso display, the Mamluks were more interested in content and accuracy; for them, form was subordinate to message.⁴⁴

For his Koran manuscript, Shadhi used a distinctive type of *naskh* with deep curves that sweep below the line, especially for the letter *nun*, which often has a distinct angle and widens at the end of the stroke. Often the letter is so big that it encompasses the gold rosette separating verses (Figure 8.5a). *Alif* is a straight stroke written

without serif but beveled at the top, and the tail of *mim* descends as a straight vertical. *Lam-alif* is written as a single connected stroke, and the eyes of the letters are filled. Other letters impinge on each other and are sometimes connected, as in *dal* to final *ha'* in the bottom line. The baseline undulates. Many of these features continue the style of *naskh* that had been current in twelfth-century Syria, as in the Koran manuscript made for Nur al-Din ibn Zangi (Figure 6.10). Shadhi's *naskh* is quite different from that used in the Ilkhanid domains. The *naskh* penned by Yaqut in 688/1289, for example, is a lighter and tighter script in which *alif* slopes slightly to the left and has a hook to the right.⁴⁵ Though the illumination in Shadhi's manuscript is copious and its patron important, the calligraphy is second-rate: his hand wavers, and the letters are cramped. Though ambitious, it is ungainly. Shadhi's hand seems rushed, and he made mistakes, omitting, for example, the word *al-amr* and later squishing it in above the line (Figure 8.5a). In regularity, majesty, and spaciousness, the Koran manuscripts made for the Mamluks in the early fourteenth century do not compare to the contemporary ones made for the Ilkhanids.

Naskh was the main text script in the Mamluk period, used for copying a wide variety of subjects ranging from hadith, law, and grammar to literary works with illustrations.⁴⁶ Although no copies of the Koran survive from early Mamluk times, we do have dated illustrated manuscripts.⁴⁷ The finest is a compendium of medical works, including a copy of Ibn Butlan's *Risalat da'wat al-atibba'* (Banquet of Physicians) transcribed by Muhammad ibn Qaysar al-Iskandari in 672/1273; its upright *naskh* with large bowls continues the style used in previous centuries in Syria, but with the occasional hook to the left on *alif* and other upright strokes.⁴⁸

These manuscripts were produced in a number of cities. Cairo, the Mamluk capital, attracted the best talent and seems to have been the main site of production for all the arts, but Damascus, the second city of the realm, was also home to an active school that produced illuminated and illustrated manuscripts for both Muslim and Christian patrons. Ghazi ibn 'Abd al-Rahman al-Dimashqi (1232–1310), for example, was a professional calligrapher and teacher of calligraphy who transcribed (and illustrated) many books there, including a copy of al-Hariri's *Maqamat* (Assemblies) now in the British Library.⁴⁹ Ghazi's most famous successor was the calligrapher (and illustrator) Ibn al-Durayhim al-Mawsili, who, like his predecessor, is known from both signed manuscripts and written chronicles. The most famous of his works to survive is a copy of the bestiary *Manafi' al-Hayawan* (Usefulness of Animals) in the Escorial (Figure 8.6) whose colophon identifies Ibn al-Durayhim as compiler, copyist, and illustrator of the codex that was finished in Rabi' I 755/March 1354.⁵⁰

Ibn Hajar al-'Asqalani's lengthy biography of Ibn al-Durayhim elucidates the life and position of a Mamluk calligrapher and helps us understand the fluid relationship of province to capital in the



Figure 8.6 Page with an illustration of two herons from a 154-folio manuscript of the bestiary entitled *Manafi' al-hayawan* with thirteen lines per page compiled, transcribed, and illustrated by Ibn al-Durayhim at Damascus and completed in Shawwal 755/October 1354.

The compiler, calligrapher, and illustrator of this text belonged to the intellectual elite of Damascus. He wrote with a good but not great hand, using a black *naskh* for the text and a gold *thuluth* outlined in black for the titles and colophon. Although his illustrations incorporate Far Eastern elements, his *naskh* was typical of the Mamluk period, particularly in Syria, with sweeping tails that bend and broaden at the end.

Mamluk domains.⁵¹ The calligrapher came from a prestigious family, for the Mamluk chronicler gives not only Ibn al-Durayhim's date of birth (Sha'ban 712/June 1312, presumably in Mosul, as indicated by his epithet al-Mawsili), but also his genealogy going back ten generations.⁵² He received the typical education of an upper-class Muslim, studying Koranic sciences and Muslim law (his epithet al-Shafi'i shows that he was a Shafi'ite) as well as the works of the physician al-Razi. Inheriting a great fortune as a child upon his father's death, Ibn al-Durayhim circulated among the Mamluk elite. When he came

of age, he moved to Damascus, where he set up a prosperous business as a merchant, and then, in 732–3/1331–2, to Cairo, where he continued to ply his trade. The 1340s and early 1350s, however, were difficult years for Ibn al-Durayhim, probably because of the intermittent warfare among the amirs of Damascus. His house there was confiscated, and his books banned. In 1348 he was even exiled from the city. He moved between Aleppo and Cairo, finally returning to Damascus, where he was reintegrated into the urban elite, working at the Great Mosque and a member of its *diwan*. Ibn al-Durayhim died in Safar 762/December 1361 at Qus in Egypt while on an ambassadorial journey to Abyssinia. The calligrapher's peregrinations underscore how difficult it is to define local schools of manuscript production within the Mamluk domains.

Ibn Hajar praises Ibn al-Durayhim's intellect as sharp but faulted his handwriting as mediocre. It was too ornate and mannered, and the chronicler concludes that better hands were available. The Escorial bestiary bears out Ibn Hajar's assessment. Each page of the 154 folios in this medium-sized manuscript has thirteen lines of *naskh* on paper of one-eighth *baghdadi* size, a layout comparable to contemporary manuscripts attributed to Damascus, such as a copy of Ibn Zafar al-Siqilli's *Sulwan al-Muta'* (Consolation for the Obedient).⁵³ The thirteen-line format is comparable to Koran manuscripts made for the Mamluks in the early fourteenth century, but the sheets are half the size used in large codices such as the one transcribed by Shadhi (Figure 8.5). Like most Mamluk calligraphers, Ibn al-Durayhim penned the text in black *naskh*, marking textual divisions with small gold rosettes of the type used by Yaqut (Figure 7.1). Script and illumination resemble those of Mamluk Koran manuscripts like the one by Shadhi, with a clear but somewhat ungainly *naskh* characterized by large swooping tails that bend and widen at the end and many filled loops to the letters. The written area is left unruled, but a thin blue line, like the one used around chapter headings in Shadhi's Koran manuscript, surrounds the illustrations. For the illustrations themselves, Ibn al-Durayhim, like other painters of his time and place, looked further afield, and many elements of the ninety-one illustrations, including the representation of the herons, are indebted to the Saljuq and Mongol traditions of Iran.⁵⁴

Naskh continued to be used for many presentation copies of the Koran made for the Mamluk elite. In 1425, for example, the sultan al-Ashraf Barsbay (r. 1422–38) donated an almost identical pair of two-volume manuscripts copied in *naskh* to the madrasa he established in the Ambarin (amber-workers) district in Cairo.⁵⁵ Neither manuscript is signed, but the similarities of script and illumination suggest that both sets are the work of the same team of calligrapher and illuminator. Like the Mamluk Koran manuscripts in *muhaqqaq*, each copy in *naskh* has some 350 folios, eleven lines to the page, and elaborate double-page frontis- and finispieces in each volume (Figure 8.7). The layout of these spreads imitates the one introduced in large

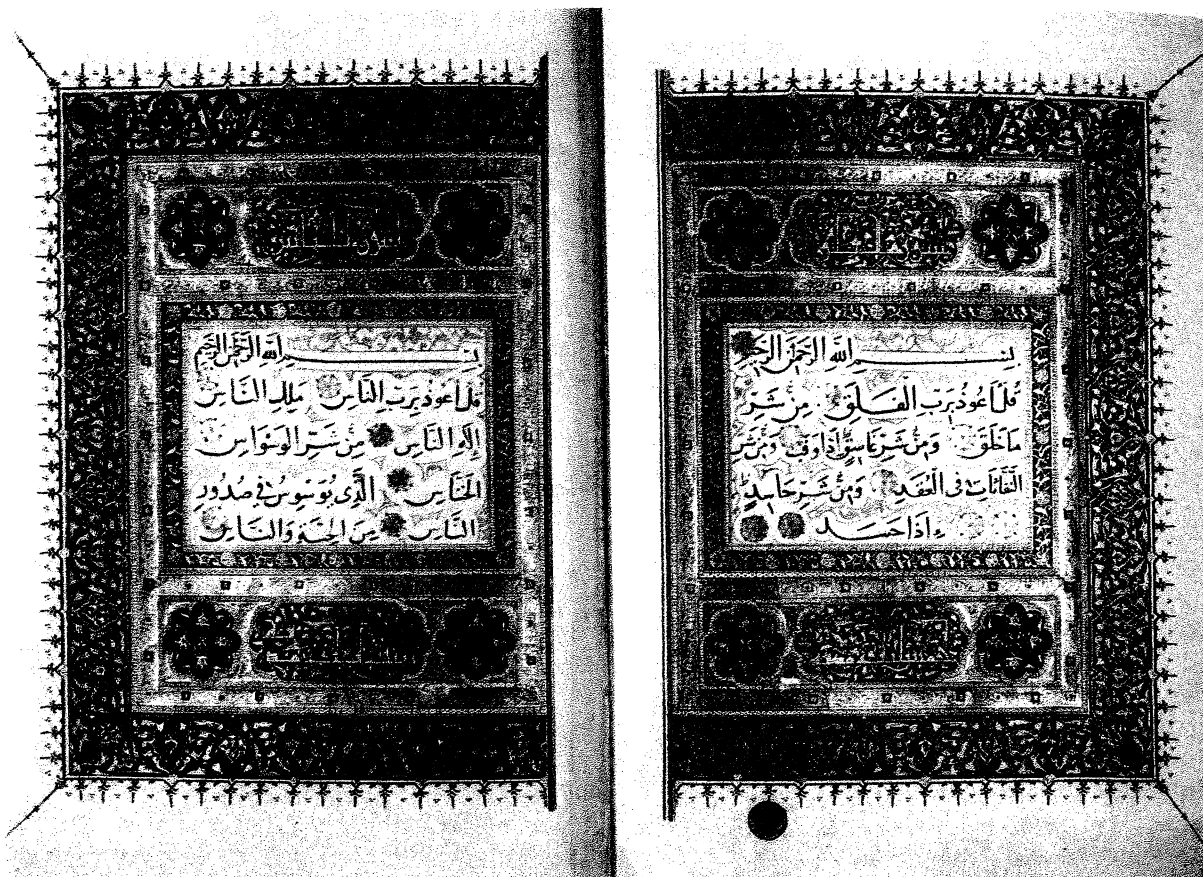


Figure 8.7 Closing page with Suras 113–14 from a two-volume Koran manuscript with eleven lines per page donated by Sultan Barsbay to his madrasa in the Ambarin district of Cairo on Friday, 25 Rabi' II 828/16 March 1425.

This manuscript exemplifies the fine Koran manuscripts produced during the Mamluk period. The scribe used black *naskh* for the text, vermillion for other markings, and brassy gold rosettes to divide verses. The chapter headings are done in a spindly white kufic. The quality of the calligraphy is overwhelmed by the somewhat brash illumination.

Koran manuscripts in *muhaqqaq* associated with al-Ashraf Sha'ban (Figure 8.2), in which the calligrapher penned a few lines of text (in this case five rather than the three used in the earlier manuscript) framed by elaborate illumination containing the name of each *sura*, number of verses, and place of revelation, here Surat al-Falaq (Dawn, 113), and Surat al-Nas (Mankind, 114). To spread out the text on his double pages (Figure 8.2), 'Ali ibn Muhammad al-Muktib had used the large *muhaqqaq* (*jalil al-muhaqqaq*). Here the anonymous calligrapher used space rather than size to spread out the text. The words themselves are written in an easy-to-read *naskh* with the swooping, angular and thickening *nun* typical of the Mamluk style but with copious spaces between words.⁵⁶

Mamluk sources call such a script with wide spaces between words *manthur* (literally, scattered or dispersed).⁵⁷ Al-Nuwayri regarded *manthur* as a variety of *naskh*, and al-Tayyibi illustrated a page of *manthur* with a Tradition of Ibn 'Abbas written in a small *naskh* with *alif* measuring 1 cm and small circles inserted between words.⁵⁸ Al-Tayyibi also used this script, with the same circles to set off the Koranic phrases, to transcribe most of his introduction to his treatise

concerning the principles of writing according to the method of Ibn al-Bawwab (Figure 8.7a).⁵⁹

The double frontispiece to the Koran manuscript endowed by Barsbay (Figure 8.7) illustrates the hand of a proficient calligrapher but not a master like Yaqut (Figure 7.1). Looking at the opening lines on each page shows why. In standard fashion, the Mamluk calligrapher extended the *bism* in the basmala at the beginning of each *sura* so that it fills the first line of each page. But the Mamluk calligrapher did not plan as carefully as Yaqut had, and the basmala is not the same on the facing pages. On the left page the Mamluk calligrapher made too long an extender and therefore had to squeeze the text at the end of the line, leaving no room for a gold rosette to separate the invocation from the opening words of Sura 114. The calligrapher's ink also varies in intensity, and his strokes are of uneven thickness, as with the *sin* in *hasad*, the final word of Sura 113 (Figure 8.7b) or in the left basmala. The drawn-out stroke is flaccid, without tension.

As with Mamluk Koran manuscripts in *muhaqqaq* (Figure 8.2), much of the striking effect of these pages comes not from the calligraphy but from the elaborate illumination. Additional punctuation for a full or optional stop is added in vermillion, a much bolder contrast than the subtle red-black combination used in the elephantine Koran manuscript made for the Timurids (Figure 7.11). Gold rosettes dotted with red and blue and the headings in a spindly white kufic are similar to those used in contemporary Timurid illumination, but the colors are flashier. Altogether, the Koran manuscript made for Barsbay is a competent, if not inspired work. Later connoisseurs appreciated its quality, or at least the amount of brassy gold in its illumination, and this volume was restored by Yusuf Mawardi in Jumada II 1113/November 1701.⁶⁰

Naskh was so popular in the Mamluk period that calligraphers developed several variants, occasionally playing them off against each other on the same page in fine manuscripts. We can see this most clearly in copies of al-Busiri's laudatory poem *Kawakib al-durriyya* (The Pearly Stars). The author, an Egyptian poet of Berber origin (d. 1296), was also a skilled calligrapher, Traditionist, and celebrated Koran reciter.⁶¹ His poem concerns the incident in which the Prophet Muhammad placed his mantle on the shoulders of Ka'b ibn Zuhayr, a poet who himself had composed an ode in praise of Muhammad and recited it to him. Al-Busiri's ode, often known as *Qasidat al-Burda* (Ode to the Mantle), is the most renowned poem in the Arabic language, thought to convey the mantle's blessing to all who hear it. The poem was particularly popular in Mamluk times, and copies made over the course of the fifteenth century were increasingly provided with lavish illumination, perhaps because the poem was read ceremonially at court, just as al-Bukhari's Traditions were read on the Prophet's birthday.⁶² Al-Busiri's poem inspired a host of other authors, and already in the Mamluk period it was usual to embellish the text as a *takhmis* (literally, making of five), a poetic form in which each



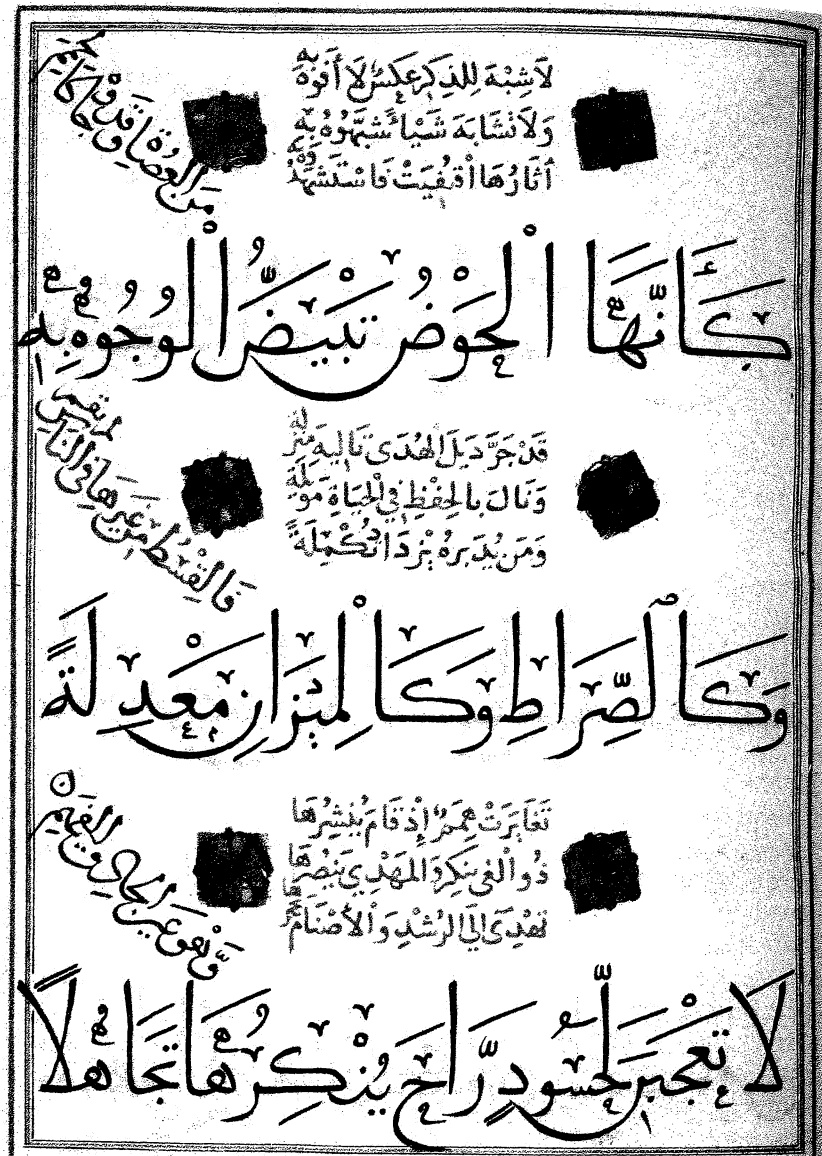
Figure 8.7a



Figure 8.7b

Figure 8.8 Page from a manuscript of Busiri's *Kawakib al-durriyya*, copied by Qanam al-Sharifi for the Mamluk sultan Qa'itbay. 1470.

Qanam al-Sharifi penned the opening hemistich of al-Busiri's text in a large black *naskh*, appending the second hemistich diagonally at the left side in a different color, using a curvaceous script like *thuluth*, but with the occasional unauthorized connection typical of *tawqi'*. Above each line of the main text are three lines of amplification written in a smaller *naskh* in a different color. Size and color thus distinguish text from amplification.



line (*bayt*) of the original text was elaborated with three hemistiches of amplification.⁶³

Several copies of al-Busiri's poem were made for the Mamluk sultan Qa'itbay (r. 1468–96), and a glossy one transcribed by Qanam al-Sharifi (Figure 8.8) shows some of the varieties of scripts used in late Mamluk times.⁶⁴ Although undated, the manuscript can be attributed to c. 1470 because an identical copy was made in 877/1472–3 for Qa'itbay's crony, Yashbak min al-Mahdi.⁶⁵ In the codex made for Qa'itbay, the calligrapher copied a line of al-Busiri's text horizontally in a line of large black script, adding the last words diagonally at the end in

another color. Centered above each horizontal line are three hemistiches of amplification that rhyme with the first hemistich of al-Busiri's text. This layout of long and short lines for text and commentary/amplification had been used for poetic manuscripts since the eleventh century (Figure 5.10), but Qanam al-Sharifi elaborated the scripts and colors: he penned the horizontal line in a large and very flat *naskh*, appending the diagonal words at the end in a more curvilinear *thuluth*, with occasional unauthorized connections typical of *tawqi'*, and added the three lines of amplification in a regular size of *naskh*.⁶⁶

Qanam al-Sharifi's calligraphy is clear, but somewhat stiff and mannered. The colors alternate regularly, even monotonously,⁶⁷ and the script is adorned with unnecessary flourishes such as knots in the tail of *damma* and letters in final position like *ta' marbuta*. The calligrapher's spacing is irregular as well, and he often had to pile up the last words of the hemistiches in the amplification to make a rectangular block. Furthermore, the first hemistich of al-Busiri's text does not occupy the horizontal space, so Qanam al-Sharifi had to fill out the line with the first word or two of the second hemistich. Color thus does not coincide with meaning. Most of the effect of this codex comes from the copious and flashy gold illumination, particularly on the double frontispiece and colophon.⁶⁸ It is a book meant to be seen and appreciated for its glossy decoration, not revered for the calligraphy of its words.⁶⁹

Mamluk sources use various names for the large version of *naskh*, including *al-matn* (literally, body of the text), *faddah al-naskh* or *naskh al-faddah* (literally, the *naskh* for divulging secrets) and *al-waddah* (literally, clear).⁷⁰ Writing about this time, al-Tayyibi calls such a script *al-naskh al-faddah* and illustrates it as a medium-sized script, with five lines to the page and an *alif* 2 cm high.⁷¹ According to al-Athari, the script was executed with a pen six horse-hairs wide and had open loops (i.e., no *tams*), but both Qanam's hand in this manuscript of al-Busiri's ode and al-Tayyibi's illustration show blind eyes for the loops in such letters as *'ayn*, *fa'/qaf*, and *mim*. In both examples, *alif* is distinguished by the total lack of hook and the tails of final *nun*, *ya'*, and similar letters are exaggerated and have the characteristic bend at the bottom of the large tail and a broadening stroke at the end of the loop.

Just as *naskh* came in a large size, so too Mamluk authors describe and illustrate a small version called *hawashi* (literally, glosses).⁷² Al-Tayyibi illustrates two pages of Traditions in this script, which belongs to his smallest group, with eleven lines per page and *alif* measuring 0.5 cm.⁷³ On the second page, he wrote the eleven lines horizontally, but on the first page he elaborated the format by continuing the text in zigzag loops in the margins. This small script, which was perfect for adding glosses to a text, had been used this way at least since the thirteenth century in manuscripts produced in Iraq and the Jazira. In the famous copy of al-Hariri's *Maqamat* (Assemblies)

written and illustrated by Yahya ibn Mahmud al-Wasiti at Baghdad in 634/1237, for example, the text is written in horizontal lines of black *naskh* with zig-zag lines of smaller red script added in the margins.⁷⁴

Curvilinear scripts

Thuluth (literally, one-third) was the chancery script *par excellence*, and, like its rectilinear book counterpart *muhaqqaq*, one of the two principal scripts (*asl*).⁷⁵ According to Mamluk sources, in *thuluth*, *alif*, which measures seven or nine dots, slants slightly to the left and has a bend at the bottom left, a shape that led the late Mamluk chronicler al-Hiti to describe it picturesquely as the figure of a man looking at his feet.⁷⁶ To balance this hook at the bottom left, *alif* always has a serif on the upper right. Because of the sloping *alif*, individual words also slope from upper right to bottom left. Dots are usually set on a slope as well. The script's roundness is emphasized by the hooks on the end of descenders and the final *ha'* written like a squiggle. *Thuluth* also has unauthorized connections between some letters and is usually written without filling in the eyes of the letters (*tams*).

In Mamluk times *thuluth* was particularly popular as a display script in manuscripts, used for titles and colophons in which it was deliberately played off against a text script of *muhaqqaq* or *naskh* and often distinguished by color or outlining.⁷⁷ In Koran manuscripts, it was one of two scripts (the other is a stylized kufic) used for *sura* headings. The enormous copy penned in *muhaqqaq* by Ibn al-Sa'igh (Figure 8.3), for example, has chapter headings in white *thuluth* set against an ultramarine ground and framed in gold. His script includes unauthorized connections, notably to initial *'ayn*, used since the twelfth century (Figure 6.14). Ibn al-Durayhim's bestiary in *naskh* (Figure 8.6) has titles in gold *thuluth* outlined in black. The colophon is written in the same way. *Thuluth* was also standard for colophons and frontis- and finispieces. In the Koran manuscript that Shadhi penned for al-Nasir Muhammad (Figure 8.5), for example, the double-page dedicatory finispiece is written in red *thuluth*.⁷⁸ Similarly, in his copy of al-Busiri's ode, Qanam al-Sharifi used a large *thuluth* for the superbly illuminated double frontispiece with the dedication to Sultan Qa'itbay, as did al-Tayyibi in the dedication of his calligraphic treatise to sultan Qansawh al-Ghawri.⁷⁹

A cartouche with a large *thuluth* inscription was standard for the dedication in a manuscript since a similar script was also used for the *tughra*, the emblem (often incorrectly known as a blazon) that identified an object (or even a building) as belonging to the household of an amir who held a specific office. At first, these emblems had been strictly pictorial. The cup, the pen box, or the polo stick, for example, signified the offices of cupbearer, secretary and polo-master. By the mid-fourteenth century, however, rulers incorporated their official titles into epigraphic emblems, while other *mamluks* used complex composite ones.

Al-Qalqashandi included a lengthy section on the *tughra* used on investiture patents (*manshur*) for important military commanders.⁸⁰ A specially appointed person in the *diwan al-insha'* drew up the *tughra*, which secretaries then inserted into the blank space left at the head of a document above the basmala. The text contained the sultan's name and honorifics, sometimes with a benediction. A complex *tughra* with many strokes was written in large (*jalil*) *thuluth*, but a shorter one with fewer strokes was written in small (*mukhtasar*) *tumar*. To make his point, al-Qalqashani described and illustrated two examples of the *tughra* drawn up some seventy years apart for two different Mamluk sultans: the first for al-Nasir Muhammad, and the second for al-Ashraf Sha'ban, the last to use the *tughra*. Al-Qalqashandi's illustration of al-Nasir Muhammad's *tughra* shows a thick *thuluth* script in which the bodies of the letters are squished at the bottom of tall stems that extend six times the height of the narrow zone containing the letters. The thirty-five verticals are arranged so that a pair alternates with a single stroke, with a pair at each end of the composition. These thick black vertical strokes (*muntasibat*), intended to contrast with the white surface of the paper, are the most striking feature of the Mamluk *tughra*.

The calligraphy of the *tughra* was also adapted for inscriptions on objects made for the sultan, such as a stunning incense burner made for al-Nasir Muhammad (Figure 8.9).⁸¹ Like most Mamluk metalwares, it is fashioned of brass inlaid with gold, silver, and a black compound and decorated exclusively with inscriptions.⁸² All of the texts, inlaid in gold, offer glory (*'izz*) to the ruler. Shorter texts in small roundels give somewhat anonymous praise (glory to our master the sultan), but longer texts, given in slightly varying forms in horizontal bands and pinwheels on both base and lid, name him as sultan al-Malik al-Nasir, using standard titles such as the learned (*al-'alim*) and the diligent (*al-'amil*).

The content, then, is repetitive, but the calligraphy is extremely creative. In the horizontal bands, the text is written in a thick *thuluth* with very compressed letters and extremely attenuated verticals that march across the surface with serifs swinging out to the right like pennants. The same script is used for the pinwheel designs, but the verticals are serif-less and point toward the center, enclosing the shorter anonymous text inlaid in gold between plain gold bands.⁸³ Not only are the layouts inventive, so are the letter forms themselves. Note, for example, the clever way in which the eye of *sad* in the sultan's name *al-nasir* in the horizontal band is pierced by an upright like a ring on a skewer (Figure 8.9a). Color and texture enhance the effect. The texts are inscribed in shiny gold, and the pinwheel inscriptions resemble a buckle cinching a belt, with strokes radiating from a gemstone. The ground around the pinwheel inscriptions is the only part of the lid that is pierced. When the incense was lit, the smoke would filter out through these holes, and the radial inscription would twinkle behind the smoke wafting over the ruler's name.



Figure 8.9a

Figure 8.9 *Inlaid brass incense burner made for the Mamluk sultan al-Nasir Muhammad ibn Qalawun and datable c. 1320.*

This incense burner shows the extraordinary calligraphy used to decorate Mamluk metalwares. The text repeats praises to the sultan, but both format and lettering of the inscriptions are superbly rendered in a thick script quite unlike that used in contemporary works on paper. Mamluk patrons apparently valued metalwares (and glass) more than books, and these superb objects are usually decorated exclusively with inscriptions.



The metalworker who made this superb incense burner adapted the format of elongated and marching verticals used in the handwritten *tughra* for the inscriptions. For the benediction with generic praise inscribed in the roundels, he added an otiose *alif* at the end, an upright stroke that matches the *lam* of *li-mawlanā* at the beginning and frames the short text like the framing vertical strokes used in the handwritten *tughra*. For the horizontal bands, he dropped the idea of alternating pairs and single strokes used in the handwritten version in favor of regular fat strokes, to which he added serifs. These thick strokes, needed undoubtedly for the inlaying and chasing, strengthen the calligraphy by making it bolder. His most creative innovation is the pinwheel, created by arranging the uprights in a circle like the rays of the sun.

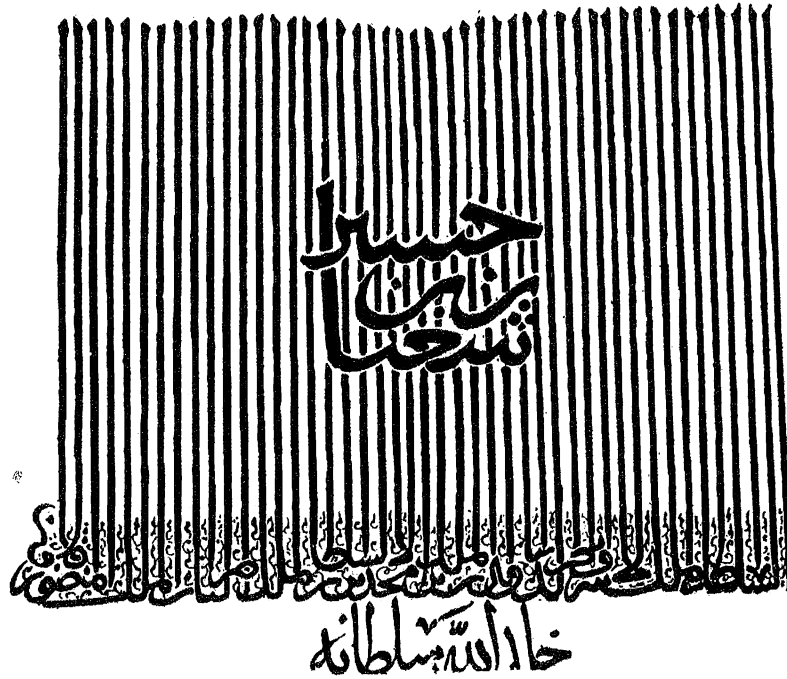
In terms of the aesthetic quality of the calligraphy, Mamluk metalwares (and glasswares) take precedence over works on paper, perhaps due to the martial and material bent of Mamluk patrons and rulers, who seem to have valued objects more than books.⁸⁴ The differences in style and quality suggest that the metalworkers took their cues from chancery scribes who worked in the bureaucracy, but rearranged the texts to fit the exigencies of their craft.⁸⁵ Such a situation contrasts with that in the Iranian lands, where calligraphers, who bore the epithet *naqqash* (designer), penned manuscripts and calligraphic specimens on paper and also designed inscriptions that were executed in the same scripts in brick and stucco on architecture and in inlay on metalwares.⁸⁶ The Iranian calligraphers must have used paper designs or stencils. In contrast, metalworkers in the Mamluk domains still worked out their inscriptions within their own craft techniques without recourse to paper designs.

Scribes in the Mamluk chancery continued to use *thuluth* for the *tughra* until the second half of the fourteenth century. Al-Qalqashandi's design for al-Ashraf Sha'ban's *tughra* (Figure 8.10) is similar to the one drawn up for the sultan's grandfather some seventy years earlier. It too has the text written in large (*jalil*) *thuluth*, with the sultan's name, titles, and genealogy back to Qalawun densely packed at the bottom in a script notable for its extended verticals. It also has the same the benediction, *khallada allah sultanah* (may God extend his sultanate), centered below.

Nonetheless, there are certain changes. Al-Ashraf Sha'ban's *tughra* is slightly larger: it was said to measure seven-twelfths (one-third plus one-quarter) of a cubit square, using the Cairene fabric cubit, whereas his grandfather's was said to measure half a cubit square. The text is slightly longer, extending two further generations. It therefore has more vertical strokes: forty-five, ten more than the earlier one. They are also arranged more regularly: all single strokes are set so that two strokes' worth of white paper is visible between each black stroke. The main change in al-Ashraf Sha'ban's *tughra* is the removal of the given names of the sultan and his father – Sha'ban ibn Husayn – from the lower line of text and their insertion in the

Figure 8.10 *Qalqashandi's design for the tughra of sultan al-Ashraf Sha'ban (r. 1363–77) from his secretarial manual, Subh al-a'sha.*

Al-Ashraf Sha'ban's *tughra* resembles that of his grandfather al-Malik al-Nasir, with the sultan's name and titles written out in a squished *thuluth* script with elongated verticals, but the verticals are uniformly spaced and the names of the sultan and his father, Sha'ban ibn Husayn, are written in an even thicker *tumar* script that bisects the tall stems.



middle of the vertical strokes in a larger and thicker script called *tumar* [see below, p. 349].

Thuluth came in various sizes in the Mamluk period. Al-Qalqashandi mentioned two: large (*thaqil*, literally heavy) and small (*khafif*, literally light).⁸⁷ Al-Tayyibi illustrated two sizes, but with different names: a very large script called *jalil al-thuluth*, written like *jalil al-muhaqqaq* with three lines per page and an *alif* c. 5 cm; and a large variety, *al-thuluth al-mu'tad* (usual or regular *thuluth*), written with five lines per page and an *alif* 3 cm. high.⁸⁸ Another small variant was called *lu'lu'i* (literally, pearly). According to al-Qalqashandi, it was akin to small *thuluth* (*thuluth al-khafif*), but its vertical and flat strokes are less than five dots in length.⁸⁹ Al-Tayyibi's illustrations of *lu'lu'i* show a medium-sized script, with *alif* measuring 2 cm, thus smaller than either of his two types of *thuluth*.⁹⁰ The most distinctive feature of his illustration is that *lu'lu'i* is written with six lines per page, the only script that al-Tayyibi illustrates with an even number of lines per page.

The second curvilinear script used in Mamluk times was *tawqi'* (literally, signature). In Fatimid times the term had been used for the ruler or vizier's motto that was inscribed near the top of the document to give it validity (Figure 6.7). On court documents issued under the Mamluks, the judge's signature in the form of a motto was called *'alama* (sign or mark). It often took a form similar to but more modest than the slogans used by the Fatimid caliphs. A typical example is *al-hamd lillah wa-as'aluhu al-tawfiq* (praise to God and I ask Him for

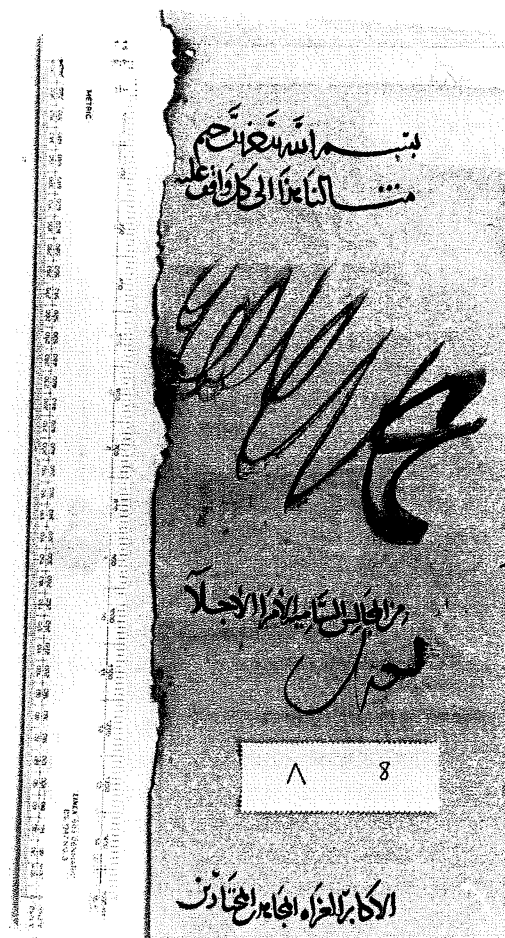
success). Like earlier examples, it too was inscribed near the top of a document in a large and bold script, with many connected letters and superposed words that render it difficult to decipher. In Mamluk times the term *tawqi*‘ was used for a second notation instructing that a document be certified. On a petition (*su’al*) addressed to a court requesting it to issue a legal document, the judge’s instruction (*tawqi*‘) was typically written in a large script along with the judge’s signature. The standard form of the instruction, *li-yuktab* (let it be written), was penned on the upper left.⁹¹

Mamluk sources also use the term *tawqi*‘ for a specific script whose name derives from the signatures written in it.⁹² *Tawqi*‘ (also identified by the plural *tawqi*‘at and *tawaqi*‘, signatures) is said to be derived from *thuluth* and even to be a small version of it. Its most obvious attribute is the linking of regularly unconnected letters by means of hair lines (*tash’irat*). Such connections are found occasionally in *thuluth*, but frequently in *tawqi*‘. Since the scribe did not have to lift his pen between letters or even words, he could write faster, and the speed also encouraged more rounding of letters. The sources record more variant information about *tawqi*‘ than about other scripts, perhaps because it was typically used for documents rather than fine manuscripts and thus varied according to the individual hand. The sources differed, for example, about the serif (*tarwis*). According to al-Qalqashandi, the serif was essential on *alif*, but according to Ibn al-Sa’igh, it could be omitted on some letters. Opinions also varied about the use of *tams*. According to al-Athari, it was optional to fill the loop of medial ‘ayn and *fa’/qaf*, *mim*, *waw*, and the *alif-lam al-muhaqqaq*. Ibn al-Sa’igh, however, favored filling in the eye of final ‘ayn, and al-Qalqashandi favored filling in the eye of medial ‘ayn.

Like *thuluth*, *tawqi*‘ came in several sizes. Al-Hiti called the larger version, with *alif* seven dots high, *al-tawaqi*‘ *al-kibar* or *al-tawaqi*‘ *al-thuluthiyya* and the smaller one *al-tawaqi*‘ *al-riqa’iyya*. Al-Qalqashandi mentioned two types of *tawqi*‘, but dealt with only one, *al-tawqi*‘ *al-mutlaq* (unrestrained or assimilated *tawqi*‘). Al-Tayyibi illustrated two versions, both called just *al-tawaqi*‘.⁹³ The first was medium-size, written with five lines per page and an *alif* 2 cm high. The second was a larger script, written with only three lines per page and an *alif* 3 cm, the same size as al-Tayyibi’s usual *thuluth* (*al-thuluth al-mu’tad*). In his illustrations, al-Tayyibi juxtaposes this larger *tawqi*‘ to *rayhan*, with three lines of *tawaqi*‘ sandwiching paired lines of the smaller *rayhan* (Figure 8.4). Al-Tayyibi’s *tawqi*‘ bears many similarities to *thuluth* (*alif* with initial hook to the right and curved foot to the left, upturned hook on descenders, etc.) but has more unauthorized connections between letters. Letters that are not supposed to be connected, such as *alif* or final *kaf*, are regularly connected in *tawqi*‘. In calligraphic versions of *tawqi*‘, as in al-Tayyibi’s illustrations, stylization was clearly a factor alongside speed. Note the second two words in the bottom line, *fi sab’a* (Figure 8.4a), where

Figure 8.11 Opening four lines from a twenty-eight-line decree issued on 3 Rajab 701/4 March 1302 in the name of the Mamluk sultan al-Nasir Muhammad ibn Qalawun.

The script in the main part of this decree this edict can be identified as a classic example of the type of *riqa'* used by the Mamluk chancery. Note, for example, the many unauthorized connections between letters, as in the last line, and the *alif* that slants to the left and has a hook at the bottom, but no serif.



al-Tayyibi exaggerated the strokes, drawing the swinging tail far to the right and transforming the upper part of *ba'*-*ayn* into a trefoil.

The smaller counterpart of *tawqi* was *riqa'*, literally meaning pieces of writing material and the script *par excellence* for decrees and official letters. Large caches of such documents have survived from the period: over five hundred were discovered in Cairo, and nearly nine hundred in Jerusalem, many belonging to the papers of the Shafi'ite court there.⁹⁴ These documents come in various sizes and shapes, some hitherto known only from references in texts. A few are squared decrees called *murabba'a* (literally, squared), made by folding the sheet into four pages.⁹⁵ Others called *waraqa* (literally, leaf) comprise a standard size sheet of paper (*daftar*) that was folded in half to form four pages, then pierced and strung with string so that it could be tied together with related documents. Many of the documents are long scrolls of the type that had been used in Egypt since Fatimid times (Figure 6.7) and was standard in contemporary Persian chanceries (Figure 7.13).

These Mamluk documents are transcribed in a wide range of scripts, from calligraphic hands to what might be characterized as scribble. The finest are royal decrees written in a clear and readable script worthy of the best clerk, as in a twenty-eight line scroll issued on 3 Rajab 701/4 March 1302 in the name of the Mamluk sultan al-Nasir Muhammad ibn Qalawun (Figure 8.11).⁹⁶ Sent to all amirs and governors in Syria, the proclamation states that the sultan had made dispositions regarding the endowments of the Two Noble Sanctuaries, presumably meaning Jerusalem and Hebron. He did so with the guidance of Rukn al-Din, his viceroy (*na'ib al-saltana*) in Egypt, probably referring to Rukn al-Din Baybars al-Jashnagir (the taster). Al-Nasir Muhammad's long reign (r. 1293–1341 with interruptions) was the high water mark of Mamluk prosperity. The Mongol threat had waned; trade flourished, both within the Mediterranean and to the East. Jerusalem prospered: al-Nasir made more contributions to the Haram than any other Mamluk sultan, though most were carried out during his third and final reign following his visit to the city in 1317.⁹⁷

This decree, written fifteen years earlier, opens with the basmala, followed by several lines of invocation with the sultan's signature scrawled between between the lines. Though half the width of the Fatimid decree (Figure 6.7), the Mamluk decree is also written in lines that are widely spaced and ascend slightly at the left. The script, in contrast to that of the earlier decree, is brilliantly clear. *Alif*, which slants slightly to the left, has a bend at the bottom, but no serif at the top. The eyes of many letters, including *waw*, *fa'/qaf*, and *mim*, are filled. The most notable feature of this fine script is the hairline connection between letters, notably *waw*, *ra'*, and *dal*, especially in set phrases such as the invocation to God in the top line.

The Mamluk decree represents the archetypical *riqa'* script as described and illustrated in the Mamluk sources.⁹⁸ *Riqa'* has the same letter forms used in *thuluth* and *tawqi'*, but is finer, rounder, and more spacious than its larger counterpart *tawqi'*. Since it is smaller, there is rarely any room for the serif (*tarwis*) typical of its larger counterparts. Similarly, it was not obligatory to use *tams*, which occurs mainly in medial and final *'ayn*, as well as in *fa'/qaf*, *waw*, and the loop of connected *lam-alif*. According to al-Hiti and al-Saydawi, in *riqa'*, *alif* measured five dots high, and al-Tayyibi's illustrations show *riqa'* as one of the smallest scripts, written with seven widely spaced lines to the page and an *alif* 0.5 cm.⁹⁹ Al-Qalqashandi adds that *riqa'* has the distinctive feature of an *alif* slanting to the right, but this feature occurs also in *tawqi'* and *thuluth*. As in *tawqi'*, many of the letters in *riqa'* are interlocked (*musalsal*). In fact, in the opening line with the basmala, virtually all the letters are connected. The better known the phrase, the more connections between letters or words.

The script used in the Mamluk decree is extremely well executed. Mamluk sources called such a high level of performance *muhaqqaq*, and in this sense, this example of *riqa'* script can be juxtaposed to another that is *mutlaq*, meaning unrestrained or having its letters

Figure 8.12 Page from an album of calligraphic specimens compiled by Muhammad ibn Hasan al-Tayyibi for the Mamluk sultan Qansawh al-Ghawri in 908/1503 with three lines of the large curvilinear script labeled *musalsal* alternating with a single line of the smaller script labeled *ghubar*. Tayyibi here shows the scribal hand, notable for its unauthorized ligatures between letters and its long swinging tails and intertwining. He contrasts this to a small sloping *ghubar*.

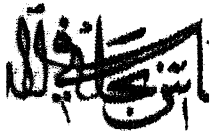
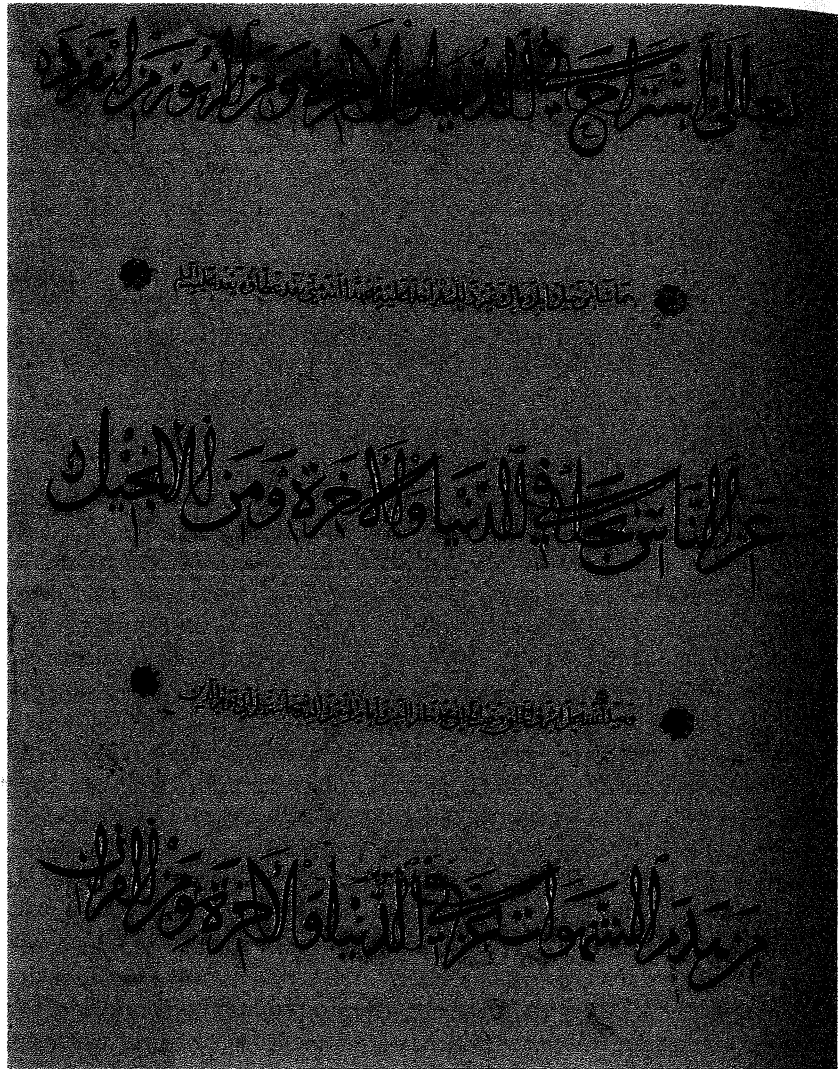


Figure 8.12a

assimilated and interlaced, as with the hand used in an estate inventory dated 12 Dhu'l-Hijja 793/11 October 1391.¹⁰⁰ Written by a notary attached to the Shafi'ite court in Jerusalem, it was prepared for a poor woman from the Maghrib whose estate may not have been sufficient to pay for a skilled scribe. Its undotted scrawl cannot be characterized as calligraphic.

By stylizing certain features of *tawqi'* and *riqa'*, scribes ultimately created new scripts. For example, by exaggerating the unauthorized connections, calligraphers developed the script called *musalsal*, literally meaning chained or interlocked. According to the sources, it is a variant of *tawqi'* in which it is permissible to interlock all the letters and the strokes of *alif* and *lam* so they resemble links in a chain.¹⁰¹ Al-Tayyibi's illustrations also show the close relationship

between *musalsal* and *tawqiʿ*, as the syllable *fi* can be written the same way in both scripts (Figures compare 8.4a and 8.12a).¹⁰² The most distinctive combination in *musalsal* is the intertwining of *alif* and *lam*. In traditional scripts, each of these letters is written as a single stroke, usually beginning at the top. In *musalsal*, each can be written beginning at the bottom (and often connecting from the previous word) and continuing up, down, up, and down so that each of the two letters resembles a bow or a figure eight, as here in the phrase *fi'l-dunya*. The chained *alif* was an effective attention-getter, and al-Tayyibi used it to make a word stand out visually from the rest of the text, much as we use boldtype today. For example, in the middle of his introduction about the method of Ibn al-Bawwab, written in the spacious variety of *naskh* called *manthur* (Figure 8.7a), al-Tayyibi put the words *wa askurahu* (and I thank Him) in *musalsal*, connecting the tail of *waw* to the initial *alif* of *askurahu*, which he wrote in up and downstrokes that intertwine like the links of a chain.

Al-Nuwayri mentioned another variant script derived from the curvilinear group: *dhahab*.¹⁰³ Literally meaning gold, the script got its name because it was written in gold ink. According to al-Nuwayri, who seems to be the only chronicler to mention *dhahab* as a distinct type of script, its letters could be written according to the rules of either *thuluth* or *tawqiʿ*, but there are no hairlines (*tashʿirat*) because the letters are outlined in another color (*tazmik*).

Al-Nuwayri also mentioned at least one variety of *riqaʿ*: *muqtarin* (literally, connected, or linked).¹⁰⁴ A derivative of *riqaʿ*, it was executed in pairs of lines (*satran muzdawijan*). This is exactly what al-Tayyibi illustrated: his specimen shows a script the same size as the tiny *riqaʿ*, with *alif* only 0.5 cm, and many unauthorized connections between letters, written in paired lines which, as in *riqaʿ*, rise at the left end of the line.¹⁰⁵

Hybrid scripts

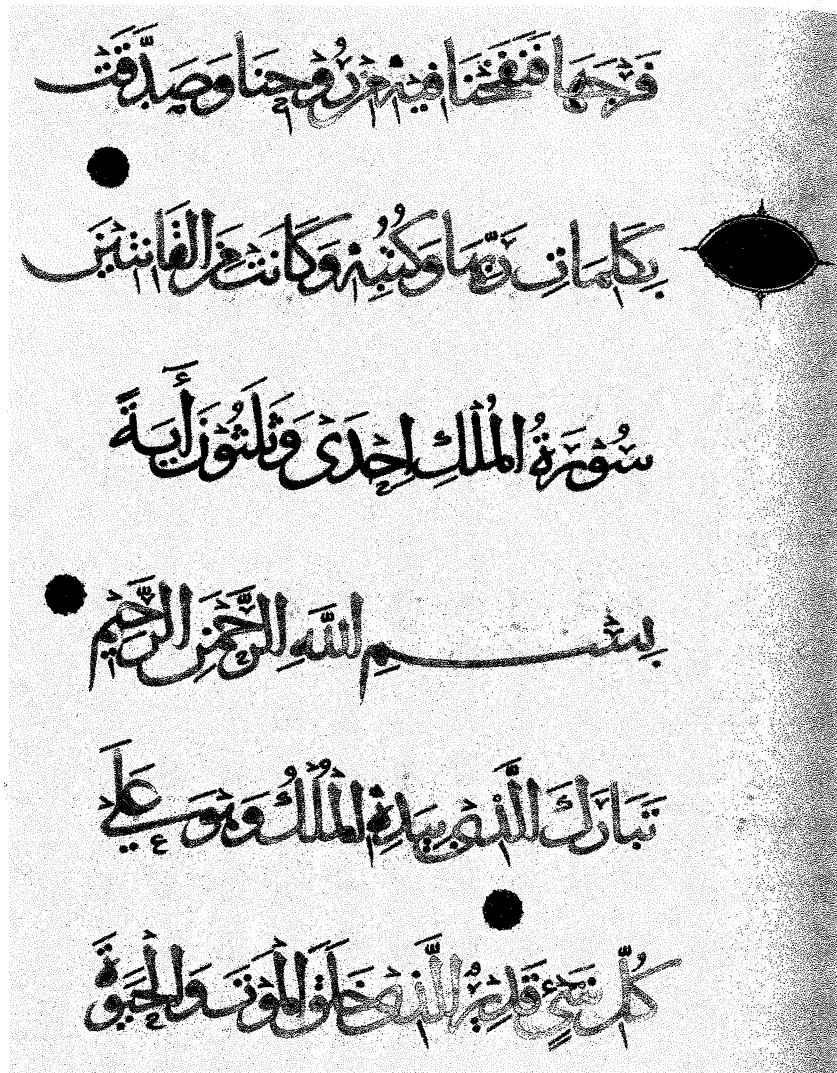
In addition to scripts that belonged exclusively to the rectilinear or the curvilinear group, the Mamluks classified other scripts that could be written with characteristics of either group. One example is *ashʿar* (literally hairs), sometimes called *al-mushaʿar* or *al-muʿannaq* (literally, elegant).¹⁰⁶ *Ashʿar* was used for the first Koran manuscript that can be assigned to the period of Mamluk rule: the famous seven-part codex (Figure 8.13) made in 704–5/1304–6 for the Mamluk amir Baybars al-Jashnagir.¹⁰⁷ The calligrapher, who is mentioned repeatedly in the colophons to the individual volumes, was Muhammad ibn al-Wahid. Like his contemporaries in Iran, Ibn al-Wahid is known from both signed works and contemporary chronicles, and these varied sources, as well as his own writings, allow us to put together a biography and delineate his role.¹⁰⁸

Ibn al-Wahid, whose full name was Sharaf al-Din Muhammad ibn Sharaf ibn Yusuf, was born in or around Damascus, perhaps in Zarʿa,

Figure 8.13 Page containing Suras 66:12–67:2 from a seven-part Koran manuscript with six lines per page transcribed by Muhammad ibn al-Wahid, probably at Cairo, for the Mamluk amir Baybars al-Jashnagir in 704–5/1304–6.

A pupil of Yaqut, Ibn al-Wahid came to work for the Mamluks in Cairo, where he worked with a team of illuminators and an outliner to prepare this magnificent Koran manuscript.

It is written in a compressed script, with many curves, upturned tails, and connected letters. Mamluk sources call the hand used in this copy *thuluth ash'ar* or *ash'ar*, a hybrid script that is variously said to be a combination of *muhaqqaq*, *thuluth*, and *naskh*. This manuscript is therefore one of the rare examples of a hand that has been labeled by contemporary sources.



a village in the Hawran area of southern Syria, as suggested by his epithet al-Zar'i. After traveling to Baalbek, he went on to Baghdad, where he studied with the cynosure of calligraphers, Yaqut, learning all six styles of round script.¹⁰⁹ Ibn al-Wahid then moved to Cairo, where he entered the service of the Mamluk amir and later sultan Baybars al-Jashnagir and became legal secretary (*katib al-shari'a*) at the Mosque of al-Hakim. From his Egyptian residence, he gained the epithet al-Misri (from Misr, the Arabic name for Egypt). In addition to his skill with the pen, Ibn al-Wahid was a good linguist and composed poetry. He died in 1311, aged 61.

The Koran manuscript penned by Ibn al-Wahid for Baybars al-Jashnagir is a *tour de force*. Each of the seven volumes contains some

155 large (47 × 32 cm) folios. More than five hundred bifolios, each measuring some 50 × 70 cm, were thus required for the complete manuscript. Each page has six lines of a thick round script, with the text written in gold outlined in black; chapter headings, pointing, and vocalization in red; and other markings in blue. As stunning as the realization of this large manuscript is its state of preservation: the entire seven volumes are intact, except for a single folio replaced near the end of the last volume.¹¹⁰

Many features of the Baybars Koran distinguish it from other Koran manuscripts copied for the Mamluks in the early fourteenth century. The division into seven volumes, for example, is unusual: virtually all other Koran manuscripts made for the Mamluks in the early fourteenth century are single-volume manuscripts.¹¹¹ So is the large size of the folios: they are half-*baghdadi* sheets. All other Mamluk Koran manuscripts made in the first two decades of the fourteenth century are half that size, written on quarter-*baghdadi* sheets.¹¹² These other manuscripts also have more lines per page, anywhere from eleven to fifteen. This manuscript is therefore bigger and more spacious than its Mamluk contemporaries. It is also more expensive, since the text is written in gold ink.

The distinctive appearance of the Baybars Koran makes it immediately identifiable in written sources, which tell us that the manuscript was intended for the huge (30 × 70 m) foundation that Baybars al-Jashnagir had established in Cairo on the site of the palace of the Fatimid viziers.¹¹³ The manuscript is first mentioned in the endowment deed drawn up in Shawwal 707/April 1308 for the complex which included the amir's tomb and a *khanaqah*, or Sufi hospice.¹¹⁴ The document enumerates provisions for four hundred Sufis and numerous other personnel; those serving at the tomb (*qubba*) include a reader of the large Koran manuscript (*qari' al-mushaf al-kabir*), a special seven-part (*juz'*) manuscript written in gold that the founder had endowed for readings that took place on Fridays in the Hakim Mosque. The mosque, which had been damaged in the earthquake of 1303, was also restored by Baybars al-Jashnagir and was the site where Ibn al-Wahid served as legal scribe. This Koran manuscript is so unusual that it was mentioned again by several later Mamluk chroniclers.¹¹⁵

According to the sources, Baybars al-Jashnagir paid the calligrapher handsomely to pen a splendid Koran manuscript for his new Sufi hospice.¹¹⁶ Looking closely at this manuscript allows us to see how Ibn al-Wahid executed the commission. In many respects, he followed the traditions established by Yaqut's followers in Iran and Iraq, but with significant variations. Ibn al-Wahid chose, for example, to make a large, multi-part manuscript that fit the public function of the codex. Rather than using the thirty-part format that was standard in Iran and Iraq by Mongol times, however, he divided the text into seven parts, a division that had been used sporadically at least since the tenth century (Figure 4.10).¹¹⁷ We do not know why Ibn al-Wahid made this decision. The description in the text suggests that,



Figure 8.13a



Figure 8.13b



Figure 8.13c

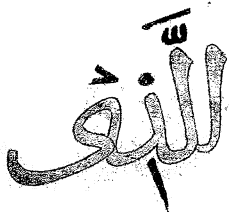


Figure 8.13d

contrary to popular assumption, the sections were not intended to be read daily, but paraded weekly to the Hakim Mosque, where the manuscript was used during Friday prayers. Ibn al-Wahid also followed Iranian models in using sheets of half-*baghdadi* size, the same sheets that Ahmad al-Suhrawardi had used for his magnificent Koran manuscript probably made for the Ilkhanid Ghazan (Figure 7.2). Curiously, though, Ibn al-Wahid penned an even number of lines (six) on each page. In this case, he may have been following a Syrian tradition, for one of the few manuscripts with an even number of lines per page (four) is the copy made for Nur al-Din ibn Zangi at Damascus in 562/1166–7 (Figure 6.10). Syrian calligraphers may have brought the tradition to Cairo.¹¹⁸

Like his contemporaries in Baghdad, Ahmad al-Suhrawardi and Arghun al-Kamili, Ibn al-Wahid worked with a team to prepare this large and fancy Koran manuscript, but Ibn al-Wahid's team was larger. The manuscript names three separate artisans in the team. Two masters – Abu Bakr, known as Sandal, and Muhammad ibn Mubadir – were responsible for illumination. A third assistant, Aydughdi ibn 'Abdallah al-Badri, did the outlining (*zammaka*) of the gold letters. Dated colophons in the separate volumes give us some idea of how long it took to complete the various steps in making the manuscript. The second section (*sub'*) is dated Jumada II 704/December 1304–January 1305, and the seventh and final section is dated 705/July 1305–July 1306. These dates suggest that it took Ibn al-Wahid about two months to transcribe each of the seven volumes, or some fourteen months for the complete manuscript. Aydughdi's outlining is also dated 705/1305–6, and his work must have followed transcription. These two steps were followed by illumination and binding, which must have been completed by Shawwal 707/March–April 1308, the date mentioned in the endowment deed. The whole project, then, took some three and a half years to complete, half the time it took Ahmad al-Suhrawardi and Muhammad ibn Aybak to complete their contemporary copy that was twice the size.¹¹⁹

Most unusual is the hybrid script that Ibn al-Wahid used. It is a rounded hand with many upturned and sometimes even reversed tails on the letters. Words are crowded together without spaces and do not sit on a baseline or *kursi* as they do in contemporary work for the Ilkhanids.¹²⁰ Independent *alif* (Figure 8.13a) has a triangular projection on the top right and a foot or hook on the bottom left. Final *ha'/ta' marbuta* is left open, as in *fihī* in the top line (Figure 8.13b). Ibn al-Wahid also used many unauthorized connections, connecting, for example, *alif* to *lam* and *dal* to final *ya'* in *aladhi* in lines five and six (Figures 8.13c and d), each slightly different. His script is close to the *thuluth* used for headings and titles in other Mamluk Koran manuscripts. These headings were often written in gold ink, and Ibn al-Wahid may have adopted the same script when commissioned to transcribe an entire Koran manuscript in gold. Nevertheless, the

script used by Ibn al-Wahid differs in several ways from the typical *thuluth*: the bowls of the letters are shallower, and the script is more compressed. The tail of *mim*, as in the basmala, also descends straight downwards, a feature typical of *naskh*.

Mamluk chroniclers identify the script that Ibn al-Wahid used as *ash'ar*.¹²¹ Most of them regarded *ash'ar* as a hybrid of *muhaqqaq* and *thuluth*, except for al-Tayyibi, who claims that it is derived from *muhaqqaq* and *naskh*.¹²² According to al-Saydawi, its distinguishing feature is the shorter and deeper tails of *waw*, *nun*, *ya'*, and *ra'*, a feature confirmed in al-Tayyibi's illustrations, in which the tails of *ra'* and *waw* are only three-fourths the extent of the ones he used in *jalil al-muhaqqaq*.¹²³ Similarly, one can compare the *mim* in al-Tayyibi's basmalas: in *ash'ar* (Figure 8.13e), the tail of *mim* is much shorter, extending only to the final *ha'* in *allah*, whereas in his *jalil al-muhaqqaq* (Figure 8.13f), the tail of *mim* extends all the way to the initial *alif* in *al-rahman*. In al-Tayyibi's illustrations of *ash'ar*, tails occasionally end in the upward hook characteristic of *thuluth*. In contrast, in his *jalil al-muhaqqaq*, all the tails of descending letters are pointed. The letters in al-Tayyibi's *ash'ar* are also fatter and higher, and they are occasionally piled up. Nevertheless, al-Tayyibi's example of *ash'ar* differs in several respects from that of Ibn al-Wahid. Al-Tayyibi's letters do not have *tams* and are much more rectilinear. Furthermore, they are not outlined.

Another script that could be written in several ways was *tumar* (literally, scroll).¹²⁴ The largest of the scripts penned with a nib twenty-four horse-hairs wide, it could be written following the rules of either *muhaqqaq* or *thuluth*.¹²⁵ According to both al-Nuwayri and al-Qalqashandi, it came in two sizes: large (*al-tumar al-kamil*) and small (*al-tumar al-mu'tad*, *mukhtasar al-tumar*), and al-Qalqashandi specified that short phrases in the Mamluk *tughra* were written in the smaller version of *tumar*, as in the center line with Sha'ban ibn Husayn in the one drawn up for al-Ashraf Sha'ban (Figure 8.10). Al-Qalqashandi is very specific about how the names in al-Ashraf Sha'ban's *tughra* must be laid out. They must be separate from the stems of the *thuluth* band and begin after the sixteenth vertical stroke, with the first four letters of Sha'ban on the first line, the *nun* of Sha'ban connected to the word *ibn* on the second line, and his father's name Husayn on the third line. The *alif* of Sha'ban, which measures one-sixth of a cubit, inclines to the left and is cut by the final *nun* of Husayn, which projects further to the left.

Examining al-Qalqashandi's design for al-Ashraf Sha'ban's *tughra* shows that it was actually written in the reverse order from what one might have expected both logically and from al-Qalqashandi's description. The large name in the center, Sha'ban ibn Husayn, seems to sit on top of the tall stems of the lower inscription. In fact, this is not the case: the names had to be written first so that the tall stems could skirt the central text. Furthermore, the top name Husayn seems to rest on top of the bottom line with Sha'ba(n). Again, this is not the



Figure 8.13e



Figure 8.13f

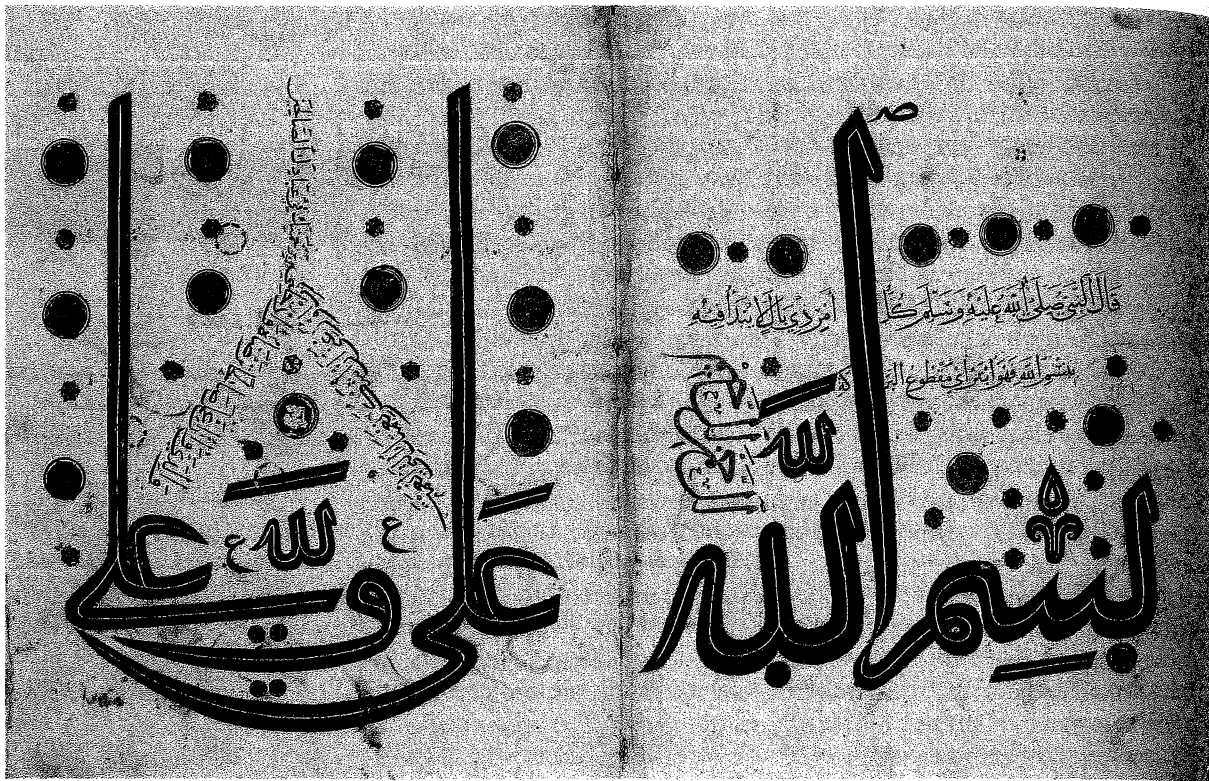


Figure 8.14 Opening double page from *al-Tayyibi's album of calligraphic specimens*.

The opening double page in *al-Tayyibi's album of calligraphy* shows two types of a very large script. We can identify this as *tumar*, the largest of all the scripts, which is said to be written according to the rules of both *thuluth* and *muhaqqaq*. The phrase on the right has the slightly pitched *alif* and tails that dart upwards, features typical of the curvilinear *thuluth*, whereas the phrase on the left has the upright *alif* and smooth, pointed tails typical of the rectilinear *muhaqqaq*.

case, as the calligrapher had to write Husayn before Sha'ban so that the tall stem of *alif* in Sha'ban could skirt the *nun* of Husayn. By leaving a thin strip of white paper visible around the words Sha'ban ibn Husayn, the calligrapher set off these names. Thus, contrast, along with size and script, calls attention to the most important part of the text, an effect similar to that achieved in manuscripts by using colored inks and different scripts for text and display. The Mamluk *tughra*, although simple in appearance, required sophisticated foresight and planning to achieve its stunning calligraphic effect.

The words Sha'ban ibn Husayn in *al-Ashraf Sha'ban's tughra* are written according to the rules of the curvilinear *thuluth*, but the invocation on the opening pages of the calligraphic album by *al-Tayyibi* (Figure 8.14) show how *tumar* could also be written according to the rules of the rectilinear *muhaqqaq*.¹²⁶ The treatise opens at the top of folio 1b with a Prophetic hadith written in regular size *muhaqqaq* that any important affair that is not begun with 'In the name of God' is tailless, that is, cut off from blessing. In other words, it is essential to begin everything with God's name, which is what *al-Tayyibi* proceeds to do. This Tradition is followed by the basmala, the standard invocation to God, with the first two words, *bism allah* (in the name of God), written in an enormous bold script, and the second two words, *al-rahman al-rahim* (the Merciful, the Compassionate)

written vertically at the left in a large curvilinear *thuluth*. The invocation continues on page 2a with a quotation from Koran 27:19: 'O Lord, order me that I may be grateful for Your favors which You have bestowed on me and on my parents and that I may work the righteousness that will please You, and admit me, by Your grace, to the ranks of Your righteous servants.' Al-Tayyibi ingeniously designed the quotation so that it starts in the center of the tripod or upside-down Y-shape and moves down along the right fork. The Koranic quotation continues across the large script at the bottom, and then moves up the left fork of the Y to end at the top of the fork. In this way the three words '*alayi wa 'ala* (on me and on [my parents]) fall at the bottom of the page and form a symmetrical design.

Al-Tayyibi's opening double page illustrates the two versions of *tumar*. In both cases, the enormous script is written with *alif* or *lam* some twenty times the height of the dot. The phrase on the right page (1b) is written *thuluth*. *Alif* is tapered and pitched slightly to the left and has a serif at the top right and a slight curve at the bottom left. The tail of *mim* darts back upwards, and final *ha'* in *allah* is open at the bottom. In contrast, the phrase on the left page (2a) is written according to the rules of *muhaqqaq*, with a straight *lam* and shallow bowls and descenders. In both cases, the letters are written with a broad stroke divided down the middle by a narrow white line. As with the reserve around the sultan's name in the *tughra* (Figure 8.10), this seemingly simple design is actually deceptive: in the *mim* of *bism*, the white line loops behind the body of the letter, suggesting that the tail was written first. It is thus a visual conceit, leading the eye in the opposite direction from the writing.

At the other end of the spectrum from *tumar* was *ghubar* (literally, dust), also known as *ghubar al-hulba* (dust of the fenugreek) and *ghubar al-hilya* (dust of the decoration). It was also called *al-janah* (wing) and *al-bada'i'q* (slips of paper), because it was used for messages carried by pigeon post.¹²⁷ It too could be written in either a rounded or a rectilinear form and was said to derive variously from *riqa'* and/or *naskh*.¹²⁸ Al-Tayyibi illustrates *ghubar* on the same page with the curvilinear *musalsal* (Figure 8.12) and wrote it with unauthorized connections, as in *riqa'*.¹²⁹ He makes his tiny *ghubar* the same size as *hawashi*, with *alif* measuring 0.5 cm, but writes it as a more curvilinear script than the flat *hawashi*. Because *ghubar* was such a small script, there was no room for a serif, just as al-Qalqashandi says.¹³⁰

Another script that seems to have belonged to both groups is *riyasi*. Also known as *al-ri'asi* and *al-riyasi*, the script takes its name from al-Fadl ibn Sahl Dhu'l-Riyasatayn (the possessor of two positions), a secretary of the 'Abbasid caliph al-Ma'mun who died in 816.¹³¹ According to al-Qalqashandi, *riyasi* was the same as *tawqi'* *al-mutlaq* (unrestrained *tawqi'*), a description that puts it in the curvilinear group and suggests that it had many unauthorized connections. Ibn al-Sa'igh counters that this derivation was incorrect and

that *riyasi* was closer to *muhaqqaq* and *naskh*, thus putting it in the rectilinear group. Al-Tayyibi's illustrations suggest that he was in Ibn al-Sa'igh's camp.¹³² His *riyasi* is a medium-sized script, written with five lines per page and an *alif* measuring 2 cm, without unauthorized connections. A sober upright script, it shows a deliberate standardization of vowelizing strokes and uniform spacing between words and letters. Its most notable feature is the serif on *lam* and *alif* which projects downwards to the left, not to the right as it does in both *muhaqqaq* and *thuluth*.

Throughout the Mamluk period, then, calligraphers were both prolific producers of and prolix writers about fine writing. They penned sober, upright scripts in which accurate content took precedence over formal pyrotechnics. Size, contrast, and color were more important than fluidity and line. Just as the Six Pens and hanging styles developed in Iran and Iraq were exported to east and west to China, India, and Anatolia, so too these Mamluk styles were the basis for developments in adjacent regions, notably the Yemen (see Chapter 9) and later in Anatolia as well (see Chapter 11).

Notes

1. The Mamluks, their history, and their art have long been studied by Europeans, because of their close contact to the Mamluks and the Mamluks' own copious writings. There is now even a journal devoted to them, *Mamluk Studies*. For a summary of Mamluk art, see Sheila S. Blair and Jonathan M. Bloom, *The Art and Architecture of Islam, 1250–1800*, The Pelican History of Art (London and New Haven, 1994), Chapters 8–10; Jane Turner (ed.), *The Dictionary of Art* (London, 1996), 'Mamluk II.' For a review of recent work on Mamluk art and architectural history, see Jonathan M. Bloom, 'Mamluk Art and Architecture: A Review Article,' *Mamluk Studies Review* 3 (1999): 31–58.
2. The most recent work is Vlad Atanasiu, 'Hypercalligraphie: le phénomène calligraphique à l'époque du sultanat Mamluk' (Paris, 2003).
3. The easiest introduction to al-Qalqashandī is the article on him in *The Encyclopedia of Islam, New Edition*, ed. H. A. R. Gibb and others (Leiden, 1960), 'al-Qalqashandī.' Modern scholars have long recognized the importance of his work. A fourteen-volume edition of the *Subh* was published in Cairo in 1913–20. Many scholars of Arabic writing, beginning with Nabia Abbott, *The Rise of the North Arabic Script and its Qur'ānic Development, with a Full Description of the Qur'ān Manuscripts in the Oriental Institute*, University of Chicago, Oriental Institute Publications (Chicago, 1939), have made extensive use of its information about calligraphy, found mainly in 2:463–5 and 3:1–222 and 6:194–5 of the edition published in Cairo in 1963: Abī al-'Abbās Aḥmad ibn 'Alī al-Qalqashandī, *Subḥ al-a'shā fī šin'at al-inshā*.
4. We have, for example, published editions of the two most important sources that he used. The first is *Minhaj al-'isaba fī ma'rifat al-khutāt wa alat al-kitāba* by Shams al-din Muhammad ibn Ahmad al-Ziftawī (d. 1403–4). He, in turn, taught Ibn Hajar al-Asqalani (d. 1449), the renowned scholar and historian, and Zayn al-Din Sha'ban ibn

Muhammad al-Athari (d. 1429), who wrote his own treatise entitled *al-Inaya al-rabbaniyya fi'l-tariqa al-sha'baniyya*, the second source plumbed by al-Qalqashandi. In addition to these and other authors writing in the early fifteenth century, we have accounts by several fourteenth-century chroniclers, such as the calligrapher Sharaf al-Din Muhammad ibn Sharif al-Zara'i known as Ibn al-Wahid (d. 1311–12) and the chronicler Ahmad ibn 'Abd al-Wahhab al-Nuwayri (d. 1333). Many of these texts have been edited and published by Hilal al-Naji and described and analyzed by Adam Gacek, 'Arabic Scripts and their Characteristics as Seen through the Eyes of Mamluk Authors,' *Manuscripts of the Middle East* 4 (1989): 144–9.

5. The largest collection of manuscripts from the Mamluk period is, naturally, in Cairo, and the national library there (Dar al-Kutub) preserves a stupendous collection, many with endowment notices by Mamluk sultans and amirs bestowing these fine manuscripts to their charitable foundations in Cairo. Outside the Middle East, the Chester Beatty Library in Dublin contains the largest number of signed and dated manuscripts of the Koran made in the period of Mamluk rule, for which see Arthur J. Arberry, *The Koran Illuminated: A Handlist of Korans in the Chester Beatty Library* (Dublin, 1967); David James, *Qur'ans and Bindings from the Chester Beatty Library: A Facsimile Exhibition*, (n.p., 1980). Most of the Koran manuscripts from the early Mamluk period are described and illustrated in David James, *Qur'āns of the Mamlūks* (London, 1988).
6. Istanbul, TKS 882. Published as Muhammad b. Hassan al-Tibi, *The Kinds of Arabic Calligraphy According to the Method of Ibn al-Bawwab (in Arabic)*, ed. Salahuddin Munajjid (Beirut, 1962). For the corrected spelling of the author's *nisba* as al-Tayyibi, see Atanasiu, 'Hypercalligraphie.' Atanasiu also noted (p. 56) that there is another copy of al-Tayyibi's work dated 1502 in the John Rylands Library in Manchester (771/97).
7. These two scripts are *al-'iqd al-manzum* (38–9), which is similar to *musalsal*, and *al-ta'liq* (42), a script with the same name but a different style than the hanging *ta'liq* used in Iran.
8. Hence, as an example of *ta'liq*, one of the two scripts that he claims to have invented, al-Tayyibi uses a petition addressed to the sultan requesting that he establish a position of calligraphy instructor in his pious foundation like the ones established in the endowments to the Barquqiyya and Ashrafiyya madrasas in Cairo, which provided for an office to teach people how to write (*maktab ya'alam al-nas al-kitaba*). Unlike the other texts that al-Tayyibi uses to exemplify the various scripts, which are hadith or poems and can thus be considered historical, this one was clearly personal: al-Tayyibi was looking for a job. Al-Tibi, *Calligraphy According to Ibn al-Bawwab*, 42; translation and commentary in Atanasiu, 'Hypercalligraphie,' 56.
9. Gacek, 'Arabic Scripts.' The largest group, with an *alif* measuring some 5 cm in al-Tayyibi's illustrations, comprises large *thuluth* (*jalil al-thuluth*), large *muhaqqaq* (*jalil al-muhaqqaq*), and *ash'ar* (literally, hairs). A second group, with *alif* measuring some 3 cm, comprises usual *thuluth* (called by Tayyibi *al-thuluth al-mu'tad*), *al-musalsal* (literally, chained), and *al-tawaqi'* (literally, signatures; plural of *tawqi'*). A medium-size group, with *alif* measuring about 2 cm, comprises *al-tawaqi'*, *al-masahif* (literally, Koran codices, Tayyibi's name for a medium-size *muhaqqaq*), *al-naskh al-fadda* (literally, the *naskh* for divulging secrets), *al-riyasi* (literally, connected with the 'Abbasid

vizier Dhu'l-Riyasitayn), and *al-lu'lu'i* (literally, pearly). A smaller group with *alif* measuring 1 cm comprises *rayhan* and *manthur* (literally, scattered). Finally, the smallest group, with *alif* measuring about 0.5 cm, comprises *riqa'*, *muqtarin* (literally, connected, linked), *hawashi* (literally, glosses), and *ghubar* (literally, dust). Following this classification, *tawaqi'* falls into two categories and could be written with either large or medium-size letters.

10. Gacek, 'Arabic Scripts' conveniently summarizes the copious data about *muhaqqaq* and the other scripts given in the many Mamluk sources.
11. For Mamluk architecture in general, see K. A. C. Creswell, *The Muslim Architecture of Egypt* (Oxford, 1952–9) and Michael Meinecke, *Die Mamlukische Architektur in Ägypten und Syrien*, Abhandlungen des Deutschen Archäologischen Instituts Kairo, Islamische Reihe (Glückstadt, 1992). For Baybars' mosque, see Jonathan M. Bloom, 'The Mosque of Baybars al-Bunduqdārī in Cairo,' *Annales Islamologiques* 18 (1982): 45–78; for Qalawun's complex, see Michael Meinecke, 'Das Mausoleum des Qala'un in Kairo: Untersuchungen zur Genese der mamlukischen Architekturdekoration,' *Mitteilungen der Deutschen Archäologischen Institut, Abteilung Kairo* 26 (1970): 47–80.
12. The earliest Mamluk Koran manuscripts that we know were copied in *naskh* (Figure 8.5) or the hybrid *ash'ar* (Figure 8.13).
13. Most Mamluk scribes are known from a single surviving work; Ahmad al-Mutatabbib is known from a generous handful: he signed four Koran manuscripts (James, *Qur'ans of the Mamluks*, 15–18) as well as a copy of the second volume of Ibn Sina's *Qanun fi'l-tibb* in Milan (Ambrosiana, ms. lxvii). Two other Koran manuscripts are in a similar style and may well be his work (James, *Qur'ans of the Mamluks*, 21 and 22).
14. DK, no. 81; James, *Qur'ans of the Mamluks*, no. 17.
15. On stylistic grounds, David James, *The Master Scribes: Qur'ans of the 10th to the 14th Centuries AD*, ed. Julian Raby, The Nasser D. Khalili Collection of Islamic Art (London, 1992), no. 42, also attributed three folios from a smaller Koran in the Khalili Collection (QUR580) to Ahmad al-Mutatabbib's hand, since they have the same elaborate system of notation and the supralinear and sublinear green dots used to indicate *hamzat al-wasl* found in the Cairene manuscript.
16. See Chapter 4.
17. Yaqut's followers include Ibn al-Wahid, a Syrian-born calligrapher who studied in Baghdad and then came to work in Cairo at the beginning of the century. See below p. 345ff. and Figure 8.13.
18. Ahmad al-Mutatabbib did pen one thirty-part Koran (CBL 1476; James, *Qur'ans of the Mamluks*, no. 18), with an unusual six-line layout found also in the Baybars Koran manuscript transcribed by Ibn al-Wahid (Figure 8.13), a format perhaps adopted from earlier Syrian manuscripts.
19. This can be seen, for example, in the colophon to the seventh volume of the Baybars Koran by Ibn al-Wahid, illustrated in James, *Qur'ans of the Mamluks*, fig. 15.
20. DK, no. 81; see note 14. James assumed that Ahmad al-Mutatabbib was an illuminator as well as a calligrapher, because the illumination in all of his manuscripts is the same and no other illuminator is named. Furthermore, the calligrapher signed this manuscript using the verb *kamala* (completed) rather than just *kataba* (wrote). James' assumption may well be correct, but it remains to be proven.
21. Al-Tibi, *Calligraphy According to Ibn al-Bawwab*, 67–72.

22. James, *Qur'ans of the Mamluks*, nos. 24, 26, and 28–35. The one manuscript that is not in Cairo – a dispersed copy (James, *Qur'ans of the Mamluks*, no. 33) – can also be associated with al-Ashraf Sha'ban, since the same scribe transcribed another copy for the sultan (DK 10; James, *Qur'ans of the Mamluks*, no. 32) and his epithet al-Ashrafi shows that he belonged to the entourage of al-Ashraf Sha'ban.
23. The manuscript for al-Ashraf Sha'ban's *mamluk* Sayf al-din Sirghitmish (DK 15; James, *Qur'ans of the Mamluks*, no. 34) even has pages double that size (105 × 77 cm).
24. One manuscript (DK 9; James, *Qur'ans of the Mamluks*, no. 31) has only seven lines per page and therefore more folios (805), bound in two volumes. Another undated fragment (DK 80; James, *Qur'ans of the Mamluks*, no. 26) also has seven lines per page and is said by James to have been bound in thirty parts. The copy illustrated here (Figure 8.2) has thirteen lines per page and hence fewer pages (217).
25. The star polygon group comprises James, *Qur'ans of the Mamluks*, nos. 24 and 28–30. No. 24 (DK 8), copied by Ya'qub ibn Khalil ibn Muhammad ibn 'Abd al-Rahman al-Hanafi, is dated 757/1356, and James speculated that it had been begun for the enormous complex built by Sultan Hasan. Sultan Sha'ban endowed the manuscript to his mother's madrasa twelve years later in Dhu'l-Qa'da 769/June 1368, the same time that no. 28 (DK 6) was endowed by Khwand Baraka to her madrasa. No. 29 (DK 7) was endowed by Sultan Sha'ban to his mother's madrasa on 15 Sha'ban 770/25 March 1369, and no. 30 (DK 54) was endowed by Arghun Shah al-Ashrafi (d. 778/1376). James therefore dated the last three to the late 1360s.

These magnificent manuscripts are signed by neither calligrapher nor illuminator, but James (172–5) argued that they were produced in Damascus on the basis of comparable illumination in a manuscript of the Four Gospels made for a Damascene cleric in 1340 and now in the Coptic Museum, Cairo (ms. 90). Damascus was certainly home to an active school producing manuscripts for both Muslim and Christian patrons (Figure 8.6), but given the movement of artisans in this period, it is difficult to distinguish locales, and in the absence of detailed art historical and paleographic studies, firm attributions to Damascus or Cairo can as yet, and perhaps always, be based only on signed manuscripts.

The Ibrahim al-Amidi group comprises James, *Qur'ans of the Mamluks*, nos. 31, 32, 34, and 35. No. 32 (DK 10), illustrated here, is the only one signed by the illuminator Ibrahim al-Amidi. Based on stylistic similarities, James assigned the other three manuscripts (DK 9, DK 15, and a dispersed copy of which two volumes are in Dublin; CBL 1464 and 1465; Arberry, *Koran Illuminated*, 75–6) to his hand.

26. By way of contrast, the script in the opening pages of the star polygon group is only one and a half times the size of the script used for the main text.
27. He also signed another dispersed Koran manuscript of the typical large size and format with eleven lines of *muhaqqaq* script; James, *Qur'ans of the Mamluks*, no. 33.
28. James points out (p. 199) that the endowment notice is decorated by the same hand as the rest of the manuscript, suggesting that Ibrahim al-Amidi continued to be occupied by the decoration until that date.
29. DK ms. 11; Martin Lings and Yasin Safadi, *The Qur'ān* (London, 1976), no. 88; Martin Lings, *The Quranic Art of Calligraphy and Illumination* (London, 1976), no. 49. The patron is so far unidentified.

30. The exact meaning of this statement is unclear. It is impossible that a single reed would have sufficed for the entire work. The statement probably means that he used a single script, and the pages are notable for the uniform and unelaborated hand.
31. Ibn al-Sa'igh's treatise has been edited and published by Hilal Naji: Ibn al-Sa'igh, *Tuhfat ūlī al-albāb fī šinā'at al-khatt wa'l-kitāb*, ed. Hilāl Nājī (Tunis, 1967). See Gacek, 'Arabic Scripts,' n. 5. The Koran manuscript for Faris is CBL 1503; Arberry, *Koran Illuminated*, no. 99; James, *Qur'ans and Bindings*, no. 36. For the second one in Cairo, see Bernhard Moritz, *Arabic palaeography: A Collection of Arabic Texts from the First Century of the Hidjra till the Year 1000* (Cairo, 1905), pls. 71-4.
32. The compactness of his script can be measured in the number of folios (255), significantly less than the 300-400 usually required for the typical Mamluk Koran manuscript with eleven lines per page.
33. CBL 1507; Arberry, *Koran Illuminated*, no. 101; James, *Qur'ans and Bindings*, no. 38. The six-month interval between the two dates would have allowed time for illumination and binding.
34. Cairo, DK 90; Lings and Safadi, *The Qur'an*, no. 94.
35. The one in Dublin is illustrated in James, *Qur'ans and Bindings*, no. 39.
36. Al-Tibi, *Calligraphy According to Ibn al-Bawwab*, 54-7. This script is sometimes called *khaff al-muhaqqaq* (light or little *muhaqqaq*) to distinguish it from *jalil al-muhaqqaq*.
37. According to al-Athari (*Inaya*, 270, cited in Gacek, 'Arabic Scripts,' 146 and n. 63), *rayhan* was two-thirds the size of *muhaqqaq*. Al-Tayyibi, too, considered it one of the smaller scripts, with an *alif* 1 cm or one-fifth the *alif* in *jalil al-muhaqqaq*.
38. Neither al-Nuwayri nor al-Qalqashandi considered it one of the five fundamental scripts, and al-Athari included it only as one of the derived scripts. See Gacek, 'Arabic Scripts,' 145.
39. Al-Tibi, *Calligraphy According to Ibn al-Bawwab*, pls. 73-7.
40. James, *Qur'ans of the Mamluks*, 20, knew of only a handful of Mamluk manuscripts transcribed in *rayhan*. One of the rare exceptions is a dispersed 30-volume manuscript with an endowment notice (*waqfiyya*) in the name of the Mamluk sultan al-Nasir Faraj ibn Barquq (r. 1399-1412). This manuscript is transcribed with five lines to the page on sheets one-eighth *baghdadi* size, the same size used for the small Korans penned by Yaqut. The small size of the folios was appropriate for the small size of the *rayhan* script, but this manuscript is the exception rather than the rule in Mamluk times. Indeed, this Koran manuscript in *rayhan* is so unusual that it has sparked various attributions. Esin Atıl, *Renaissance of Islam: Art of the Mamluks* (Washington, DC, 1981), nos. 1-2, attributed it to the first quarter of the fourteenth century. James first (*Qur'ans and Bindings*, nos. 31-3) dated it to c. 745/1345, but then later (*Qur'ans of the Mamluks*, no. 35) moved it to c. 1370-5 and attributed it to the hands of 'Ali ibn Muhammad al-Muktib al-Ashrafi and Ibrahim al-Amidi, the same team of calligrapher and illuminator who produced magnificent Koran manuscripts in *muhaqqaq* for al-Ashraf Sha'ban (Figure 8.2). The dispersed manuscript has many features relating it to work done in Baghdad by the Ilkhanid team of calligrapher and illuminator Arghun al-Kamili and Sayf al-Din al-naqqash, ranging from size to decorative details like the interlocking lobed circles of the frontispiece which are marked out by a toothed white fillet band, the use of turquoise, the clouds behind the calligraphy, and the cicada shapes painted in grisaille to fill empty areas

between lines of script. All of these features suggest that the manuscript should be dated to the earlier part of the fourteenth century and link it closely to Iranian work. They also show how difficult it still is to assign dates and locales to manuscripts that are not signed, and this manuscript has even been attributed to fifteenth century Iran; see Nabil F. Safwat, *The Harmony of Letters: Islamic Calligraphy from the Tareq Rajab Museum* (Kuwait, 1997), 48–9.

41. James, *Qur'ans of the Mamluks*, no. 6. Most of the manuscript is in Istanbul [TIEM, no. 450]. Other folios, like the one illustrated here, are in the Freer Gallery [see Shen Fu, Glenn D. Lowry, and Ann Yonemura, *From Concept to Context: Approaches to Asian and Islamic Calligraphy* (Washington, DC, 1986), no. 43] and the BMFA (no. 39.373).
42. Shadhi's identification and biography are described in James, *Qur'ans of the Mamluks*, 68.
43. The calligrapher Shadhi and the illuminator Aydughdi also worked on two other copies of *al-Fawa'id al-jaliyya*, the correspondence by al-Nasir Da'ud, Ayyubid ruler of Karak, who was considered a master of the epistolary style. An incomplete copy in the British Library (ms. 3025) was transcribed and illuminated by Aydughdi ibn Muhammad the gilder (*al-mudhahhib*) in Sha'ban 712/December 1312. A second, complete copy of the same text (Istanbul, Aya Sophia ms. 4823) was transcribed by Shadhi in 720/1320; to judge from the style of the illumination, it too is the work of Aydughdi. This copy was made for the library of Sultan 'Imad, who was probably the celebrated historian and ruler of Hama, Abu'l-Fida, himself a patron and man of letters. He commissioned, for example, a fancy inlaid pen box (Cairo Museum of Islamic Art 15132; Atıl, *Renaissance*, no. 24) to hold his writing materials and signify his status.
44. On this point, see also Atanasiu, 'Hypercalligraphie,' 40.
45. See Chapter 7 and note 22 for references.
46. For other Koran manuscripts in *naskh* made in Cairo at the beginning of the fourteenth century by Muhammad ibn 'Abdallah ibn Ahmad al-Ansari al-Khazraji, see James, *Qur'ans of the Mamluks*, nos. 4 and 5 (CBL 1457 and Humaizi Collection, Kuwait, no. I/49).
47. For an introduction to illustrated manuscripts of the period, see Duncan Haldane, *Mamluk Painting* (Warminster, 1978).
48. Milan, Ambrosiana A 125inf; Oscar Löfgren and Renato Traini, *Catalogue of the Arabic Manuscripts in the Biblioteca Ambrosiana, I: Antico Fondo and Medio Fondo*, Fontes Ambrosiani (Venice, 1975), LXX; one of the eleven paintings, though not the calligraphy, is reproduced and discussed in Richard Ettinghausen, *Arab Painting* (Geneva: Skira, 1962), 143–5, who assigns the manuscript to Syria based on the style of the miniatures. The entry in Löfgren and Traini's catalogue says that the manuscript was made in Alexandria, but it seems that they simply assumed this from the epithet of the calligrapher al-Iskandari (from Alexandria).
49. Working from Mamluk sources, notably Ibn Hajar al-'Asqalani (1372–1449), David Storm Rice, 'A Miniature in an Autograph of Shihāb al-Dīn Ibn Faḍlallāh al-'Umārī,' *Bulletin of the School of Oriental and African Studies* 13 (1951): 862–3, put together a brief biography of this calligrapher. Ghazi studied hadith and calligraphy and was said to have excelled in the style called *mansub* (the proportioned script). He also trained many pupils, including Ibn Basis, one of our early sources on Mamluk calligraphy. Ghazi was apparently also a painter, for a damaged copy of the *Maqamat* (BL, Or. MS. 9718),

transcribed in a regular *naskh*, has an illustration surmounted by an inscription in stylized kufic saying that it was made (*sana'a*) by Ghazi ibn 'Abd al-Rahman al-Dimishqi. (The painting was first identified by L. A. Mayer, 'A Hitherto Unknown Damascene Artist,' *Ars Islamica* 9 [1942]: 168.) The verb *sana'a* (to make or design) suggests that Ghazi was also responsible for the illustration. Ibn Hajar's report that Ghazi excelled in *mansub* must apply to both text and display scripts. This is a rare case where we can match the term *mansub* with an actual example.

50. Real Biblioteca of San Lorenzo del Escorial, Ar. 898; Anna Contadini, 'The *Kitāb Manāfi' al-Hayawān* in the Escorial Library,' *Islamic Art* 3 (1988-9): 33-58. The elaborate two-page colophon (her figs. 1-2) says that 'Ali ibn Muhammad ibn 'Abd al-'Aziz ibn Abi'l-Fath ibn al-Durayhim al-Mawsili compiled the work and that his strange and splendid crafts (*funun*) and skillful and extraordinary designs (*naqqush*) were finished in Rabi' I 755/March 1354. Most scholars, from Henri Massé to Richard Ettinghausen, have proposed reading the text as translated here. Contadini went to some lengths to translate it differently. First, she reordered the lines (reading the top line of the rubric in *thuluth*, the main text in *naskh*, and then the bottom line of the rubric in *thuluth*). Then she reinterpreted the pronouns in the main text, reading the third-person pronoun *-hu* following crafts and designs as *its*, referring to the book (*kitab*), rather than *his*, referring to the author (Ibn Durayhim), and the third-person feminine pronoun *-ha* following *sahib* in the benediction as referring to these plural things rather than to the nearby feminine noun *hijra* (year).

Her reading is not convincing. Following convention, the lines should be read in two separate parts as delineated by the two different scripts: first, the large rubric in *thuluth*, top and bottom, and second, the main colophon in *naskh*. The different scripts show that the texts were meant to be read separately. Whereas in the Persian-speaking world, scribes mixed scripts, they did not do so in the Arab lands. Furthermore, her rereading of the pronouns is contorted and defies ordinary logic. Rather, I follow the generally accepted reading that Ibn al-Durayhim claims credit for compilation, transcription, and illustration.

The manuscript contains another two-line colophon at the end of the text on fol. 153a written in gold *thuluth* outlined in black, the same script used for the names of the animals in the text, with the date Shawwal 755/October 1354. This does not refer, as in Contadini's note 9, to the compilation of the text, but to the collation with the exemplar (*muqbalā*). Thus, seven months after he had finished writing the text, Ibn al-Durayhim finished checking it against the original for accuracy.

51. Ibn Hajar, *Durar*, 3:106-8, summarized in Contadini, 'Manafi' al-Hawayan,' 40-1.
52. Comparing the calligrapher's own version in the manuscript with that given by Ibn Hajar shows how mistakes creep into texts: Ibn Hajar (or at least, the published version of his text) gives the scribe's great-grandfather as Futuh, whereas the colophon in the calligrapher's own hand gives Abi'l-Fath.
53. *Muhammad Ibn Zafar al-Siqilli's Sulwān al-Muṭa'* [*Prescription for Pleasure*], trans. M. Amari, commentary by A. S. Melikian-Chirvani (Kuwait, 1985). The manuscript, sold at Spinks in May 1977, is now in the Homaizi collection in Kuwait. Several pages have been detached from it: two are in the Freer Gallery 54.1 and 54.2; see Ettinghausen, *Arab Painting*, 140-1; Esin Atıl, *Art of the Arab World* (Washington,

- DC: Smithsonian Institution, 1975), no. 54; Haldane, *Mamluk Painting*, 104.
54. Eustache de Lorey, 'Le bestiaire de l'Escorial,' *Gazette des Beaux-arts* 2 (1935): 228–38, was the first to compare this painting to one from a dispersed copy of another *Manafi' al-Hayawan* attributed to late thirteenth-century Iran (FGA 27.5), which has a similar composition but more naturalistic vegetation set against a plain ground. As Contadini, 'Manafi' al-Hawayan,' 45 rightly points out, it is not necessary to assume that Ibn Durayhim had this precise painting in front of him to use as a model, but rather that he was aware of and worked within an iconographical tradition that incorporated Far Eastern elements.
 55. Cairo, DK, 96 and 98; Lings and Safadi, *The Qur'an*, nos. 92–3; Atil, *Renaissance*, nos. 7–8. Atil (p. 43) gives a list of seven other Koran manuscripts endowed by Barsbay.
 56. Such spacing is also used for headings in manuscripts written in Gothic script and hence in traditional printed works like *EI/2*.
 57. Gacek, 'Arabic Scripts,' 146.
 58. Adam Gacek, 'Al-Nuwayrī's Classification of Arabic Scripts,' *Manuscripts of the Middle East* 2 (1987): 127; al-Tibi, *Calligraphy According to Ibn al-Bawwab*, 40. Al-Athari, however, considered that *manthur* was derived from both *riqa'* and *naskh*; Gacek, 'Arabic Scripts,' 146 and n. 41.
 59. Al-Tibi, *Calligraphy According to Ibn al-Bawwab*, 16.
 60. The second volume of DK 98, vol. 2. Atil, *Renaissance*, no. 8.
 61. *EI/2*, Supplement: 'al-Būṣīrī.'
 62. In addition to *EI/2*, 'Burda,' see Annemarie Schimmel, *And Muhammad is His Messenger: The Veneration of the Prophet in Islamic Piety* (Chapel Hill and London, 1985), 182–8. I owe the suggestion about the ceremonial reading of al-Busiri's poem to Amy W. Newhall, 'The Patronage of the Mamluk Sultan Qa'it Bay, 872–901/1468,' Ph.D. dissertation (Harvard University, 1987), 196–8 and n. 68, whose work provides a lengthy discussion (pp. 196–215) of the manuscripts prepared for Qa'itbay.
 63. *EI/2*, 'Takhmīs.'
 64. Dublin, CBL 4168. Arthur J. Arberry, *The Chester Beatty Library: A Handlist of the Arabic Manuscripts* (Dublin, 1955–66), no. 4168; Atil, *Renaissance*, no. 9, who also gives a partial list of copies made for Qa'itbay.
 65. CBL 4169; Arberry, *Handlist*, no. 4169.
 66. A similar layout is found, for example, in a copy of al-Busiri's ode with al-Fayyumi's amplification transcribed at Cairo and dated 16 Sha'ban 707/10 February 1308; CBL 4178; Arberry, *Handlist*, pl. 142, where the calligrapher, Yusuf al-Sara'i, used a large *thuluth* for the text and a smaller *naskh* for the amplification.
 67. The diagonal hemistiches on the top and bottom lines are always written in the same color (here red); the middle one in a different color (here blue) that is also used for the top and bottom blocks of amplification. The middle block of amplification is always in gold. Facing pages are always done in the same sets of colors.
 68. Here again the effect is produced mainly through quantity rather than quality. The gold rosettes, for example, are not finely painted. Rather, the gold is applied in a block that spills outside the rosette petals.
 69. This flashy effect still works. When the book is on display in the splendid new galleries of the Chester Beatty Library in Dublin, it is shown

open to the double frontispiece, which flashes like a neon light, outshining the other (and often calligraphically better) manuscripts in the same room.

70. Gacek, 'Arabic Scripts,' 146.
71. Al-Tibi, *Calligraphy According to Ibn al-Bawwab*, 63–7. Qanam al-Sharifi's *naskh* is even larger: *alif* measures 3 cm in the horizontal line as compared to 0.5 cm in the small block.
72. Gacek, 'Arabic Scripts,' 145 and n. 38, with references to al-Nuwayri and al-Athari.
73. Al-Tibi, *Calligraphy According to Ibn al-Bawwab*, 89–90.
74. Paris, BN, 5847; Ettinghausen, *Arab Painting*, 118–19; Marie-Geneviève Guesdon and Annie Vernay-Nouri (eds), *L'Art du livre arabe: du manuscrit au livre d'artiste* (Paris, 2001), no. 98. A curious single-volume transcribed of the Koran copied on European paper watermarked with a double-key surmounted by a cross and therefore datable to the 1340s (London, Nour collection, QUR561) has the text written out horizontally in nineteen lines and then continuing in a smaller script written in zig-zag rows in the margin. See James, *Master Scribes*, no. 34; Jonathan M. Bloom, *Paper before Print: The History and Impact of Paper in the Islamic World* (New Haven, 2001), fig. 24. The use of both European paper and *hawashi* as a text script are most unusual.
75. Gacek, 'Arabic Scripts,' 147. Mamluk authors give two etymologies for its name, both in relationship to *tumar*, the typical flat (*mabsut*) script. Some authors say that compared to *tumar*, only one-third of the strokes in *thuluth* are straight. Others say that *thuluth* is written with a pen whose nib is one-third the width of that used for *tumar* (i.e., eight horse-hairs). As Gacek noted, the two explanations are not mutually exclusive but complementary.
76. Al-Hiti, *al-'Umda*, 12, cited in Gacek, 'Arabic Scripts,' 147 and n. 87.
77. At the beginning of the Mamluk period, calligraphers sometimes played off *thuluth* against other scripts on the same page, as did their contemporary calligraphers in the eastern Islamic lands. Manuscripts of al-Busiri's 'Ode to the Mantle' made in the fourteenth century use *thuluth* for the main text juxtaposed to shorter lines in smaller *naskh* for the commentary. In the manuscript transcribed by Yusuf al-Sara'i at Cairo on 16 Sha'ban 707/10 February 1308 at Cairo (CBL 4178; Arberry, *Handlist*, pl. 12), for example, al-Busiri's text is written in a large *thuluth* and Nasir al-din Muhammad ibn 'Abd al-Samad al-Makki al-Fayyumi's commentary in a smaller *naskh*. Such a combination of curvilinear and rectilinear scripts was not popular in Mamluk domains, and in later times calligraphers opted for a juxtaposition of two sizes of *naskh*, as in Qanam al-Sharifi's copy of al-Busiri's text (Figure 8.8).
78. James, *Qur'ans of the Mamluks*, fig. 35.
79. Atil, *Renaissance*, no. 9; al-Tibi, *Calligraphy According to Ibn al-Bawwab*, 1.
80. Al-Qalqashandi, *Subh al-a'sha*, 13:162–67; *El*/2, 'Tughra.'
81. James W. Allan, *Islamic Metalwork: The Nuhad Es-Said Collection* (London, 1982), no. 15.
82. The main exceptions to this rule are the two anepigraphic pieces made by Muhammad ibn al-Zayn: the Vasselot Bowl and the Baptistère de St Louis, both in the Louvre (MAO 331 and LP 16); see Atil, *Renaissance*, nos. 20 and 21. Unlike virtually all other Mamluk metalwares, they are extensively decorated with figural representations,

- perhaps a substitute for the formulaic titles standard on other pieces; on this point, see Jonathan M. Bloom, 'A Mamluk Basin in the L. A. Mayer Memorial Institute,' *Islamic Art* 2 (1987): 15–26.
83. The frieze of marching verticals is a well-known Mamluk style of epigraphy, already found on metalwares produced in the late thirteenth century, such as a candlestick base made for Zayn al-Din Kitbugha before he ascended the throne in 1294 (Cairo, Museum of Islamic Art 4463; Atil, *Renaissance*, no. 15). The pinwheel device is newer: it appears on objects made for al-Nasir Muhammad, such as a large Koran stand (*kursi*) made by 'the poor servant Ibn al-Mu'allim,' the master Muhammad ibn Sunqur al-Baghdadi, in 728/1328 and a magnificent Koran box, both now in the Museum of Islamic Art in Cairo (see Gaston Wiet, *Objects en cuivre*, Catalogue générale du Musée Arabe du Caire [Cairo, 1984 [1932], no. 139, 14–28, pls. I and II; Atil, *Renaissance*, no. 25). Allan, *Islamic Metalwork: The Nuḥād Es-Said Collection*, 24–6, suggested that this pinwheel device was meant to equate the ruler with the sun, but such an interpretation may be unduly speculative. Whatever its meaning, the device became common from the time of al-Nasir Muhammad on metalwares made for later sultans.
 84. Atanasiu, 'Hypercalligraphie,' Chapter 4, discusses the question of the thickness (*graisse*) of Mamluk script on metalwares and its relationship to the Mamluk military elite.
 85. Most of what we know about individual Mamluk metalworkers comes from their signatures. Many of the seventeen known craftsmen bear the epithet al-Mawsili (from Mosul), suggesting that they (or their families) traced their descent from the school of metalwork that flourished in Mosul during the early thirteenth century. Some bear titles such as *mu'allim* (teacher) or *ustad* (master), suggesting a hierarchy, but the details about the organization of production remain to be worked out.
 86. The calligrapher Ahmad Shah, for example, penned Koran manuscripts and designed inscriptions and brass candlesticks. See Chapter 7.
 87. Al-Qalqashandi, *Subḥ al-a'sha*, 3:58–100.
 88. Al-Tibi, *Calligraphy According to Ibn al-Bawwab*, pls. 46–53 and 32–8, respectively.
 89. Al-Qalqashandi, *Subḥ al-a'sha*, 3:100.
 90. Al-Tibi, *Calligraphy According to Ibn al-Bawwab*, pls. 85–8.
 91. Donald P. Little, *A Catalogue of the Islamic Documents from al-Ḥaram Aš-Šarīf in Jerusalem*, Beirut Texts und Studien (Beirut/Wiesbaden, 1984), 44–5 and pl. 6. On other documents requiring an attestation (*irshad*) of authenticity, such as an estate inventory, deposition (*iqrar*), or marriage contract (his pl. 11), the *tawqi'* began with *li-yushḥad bi-thubut ma qamat bihi l-bayyina* (let there be attestation to the certification of what has been established by evidence [witnesses]), often shortened to *li-yushḥad bi-thubutihi* (let there be attestation to it) or simply *li-yushḥad bihi* (let there be an attestation to it). On these documents the *tawqi'* was written in the upper-right margin, with the signature of the judge or witnesses on the back of the document.
 92. Gacek, 'Arabic Scripts,' 146.
 93. Al-Tibi, *Calligraphy According to Ibn al-Bawwab*, 43–6 and 73–7.
 94. Little, *Catalogue*; Donald P. Little, 'The Haram Documents as Sources for the Arts and Architecture of the Mamluk Period,' *Muqarnas* 2 (1984): 47–61. The vast majority of the Jerusalem cache, written in Arabic and often dated between 1393 and 1397, constitutes the records

of the qadi Sharaf al-Din 'Isa, chief Shafi'ite judge in the city. Many are therefore related to his position as administrator of pious endowments. Another collection of twenty-seven documents in Persian and fourteen related ones in Arabic deal with business and legal transactions involving people and property in Azerbaijan. Little concluded that they represent the archive of a family from Azerbaijan who had settled in Jerusalem and were probably filed in the Shafi'ite court there.

95. These squared decrees usually have the main text accompanied by registry notations on the front, with the date, summary, signature, and more notations from the registry on the back.
96. Little, *Catalogue*, 26–7, no. 8; Little, 'Haram Documents,' pl 1.
97. Michael Hamilton Burgoyne, *Mamluk Jerusalem, an Architectural Study*, additional historical research by D. S. Richards ([London], 1987), 77.
98. Gacek, 'Arabic Scripts,' 146 with references.
99. Al-Tibi, *Calligraphy According to Ibn al-Bawwab*, pls. 78–82.
100. Little, 'Haram Documents,' pl. 2.
101. Gacek, 'Arabic Scripts,' 146.
102. Al-Tibi, *Calligraphy According to Ibn al-Bawwab*, 58–63.
103. Gacek, 'Nuwayri's Classification,' 127 and n. 23; Gacek, 'Arabic Scripts,' 145 and n. 27.
104. Al-Nuwayri, *Nihaya*, 222 cited in Gacek, 'Nuwayri's Classification,' 127 and n. 20; Gacek, 'Arabic Scripts,' 146 and n. 54.
105. Al-Tibi, *Calligraphy According to Ibn al-Bawwab*, 41.
106. Gacek, 'Arabic Scripts,' 145.
107. BL 22406–22412; the binding and thirty-four pages from the manuscript are available on-line at www.bl.uk. For a fuller analysis of the manuscript, see David James, 'Some Observations on the Calligrapher and Illuminators of the Koran of Rukn al-Dīn Baybars al-Jāshnagīr,' *Muqarnas* 2 (1984): 147–58; James, *Qur'ans of the Mamluks*, no. 1.

The patron is presumably the same person who had been referred to al-Nasir Muhammad's decree as *na'ib al-saltanat* (Figure 8.11). The opening volume of the Koran manuscript contains the certificate of commissioning naming the patron as Baybars *al-ustadar* (major-domo), a position he had been assigned in 1299. Originally a *mamluk* of sultan Qalawun, Baybars also served as *atabek al-jaysh* (commander-in-chief) and overthrew Qalawun's son al-Nasir to rule briefly as al-Muzaffar Baybars (1309–10) until al-Nasir Muhammad regained the throne. This Baybars, usually identified by his epithet Jashnagīr (taster) and sometimes called Baybars II, is not to be confused with Baybars al-Bunduqdari (the bowman), sometimes called Baybars I, the sultan who built the vast congregational mosque to the north of the old city of Cairo.

108. Latest work in James, 'Observations'; James, *Qur'ans of the Mamluks*, 37–9.
109. According to al-Safadi, Ibn al-Wahid wrote *naskh*, *rayhan*, and *muhaqqaq* better than anyone else. James, *Qur'ans of the Mamluks*, 38 and n. 18, citing al-Safadi's *al-Wafi bi'l-wafayat*, no. 1104.
110. The penultimate folio 164 containing Suras 112 and 113 has been replaced on a sheet of wove paper with poor calligraphy. Based on allographs, or examples of the same letter shapes, used by Ibn al-Wahid, Atanasīu ('Hypercalligraphie,' Chapter 14) generated a sample page of what the original might have looked like. He also suggested (167 and n. 2) that this replacement occurred between the end of the eighteenth century, the time when such paper began to be commonly used, and

the date when the pagination was added after the manuscript entered the collection of the British Library in 1858. Equally interesting is the question of how this intact manuscript ended up in the British Library in the nineteenth century.

111. James, *Qur'ans of the Mamluks*, nos. 2–25.
112. James, *Qur'ans of the Mamluks*, nos. 2–8.
113. Index of Muhammadan Monuments, no. 476; Creswell, *The Muslim Architecture of Egypt*, 249–54; Meinecke, *Die Mamlukische Architektur in Ägypten und Syrien*, no. 9B/66.
114. Leonor Fernandes, 'The Foundation of Baybars al-Jashankir: Its Waqf, History, and Architecture,' *Muqarnas* 4 (1987): 21–42.
115. Both al-Safadi, writing in the fourteenth century (*al-Wafi bi'l-wafayat*, no. 1104), and Ibn Hajar, writing in the fifteenth (*al-Durur al-kamina*, no. 3740), report that the manuscript was in the Hakim Mosque. Ibn Iyas, writing in the sixteenth century (*Bada'i al-Zuhur*, I, i, 418–19), includes an unusually complete account of this manuscript under the year 705/1305–6, reporting that the *atabeg* Baybars al-Jashnakir began to build his *khanaqah* and that Shaykh Sharaf al-Din Ibn al-Wahid wrote a copy of the Koran in seven parts for Baybars. It was written on *baghdadi* paper, and Baybars is said to have spent 1,600 dinars on the volumes so that they could be written in gold. Placed in the *khanaqah*, it was still considered one of the beauties of the age when Ibn Iyas was writing. These sources have been gathered in James, *Qur'ans of the Mamluks*, 36–7.
116. In fact, Ibn al-Wahid seems to have embezzled some of the money: Baybars is said to have given Ibn al-Wahid 1600 dinars to pen the manuscript, but the calligrapher expended only 400. See James, *Qur'ans of the Mamluks*, 37–8.
117. James, *Qur'ans of the Mamluks*, nos. 39, 40, 42, 45, 46, 52, 55, 56, 59–61 are all thirty-part manuscripts.
118. Ibn al-Wahid's contemporary, Shadhi ibn Muhammad ibn Shadhi, who transcribed a Koran manuscript for al-Nasir Muhammad in 713/1313 (Figure 8.5), was an Ayyubid prince from Syria. Later chroniclers saw this link and traced the lineage of Mamluk calligraphers back to the Zangids. One of the fullest accounts of Mamluk calligraphers is that given by the Egyptian author and lexicographer Muhammad Murtada al-Zabidi (1732–91) in his *Hikmat al-ishraq ila kuttab al-afaq* (James, *Qur'ans of the Mamluks*, 11–12, n. 1; for further details about him, see Chapter 12). Zabidi claims that the tradition of calligraphy in Egypt goes back to Yaqut al-Mawsili, who died at Mosul in 1221. He was the master of Abu'l-Hasan ibn Zanki called *wali al-'ajami*, who in turn was the master of 'Afif al-Din Muhammad al-Halabi (from Aleppo), also known as al-Shirazi. The latter had a son 'Imad al-Din Muhammad, who was his pupil as well as a leading grammarian and calligrapher. 'Imad al-Din in turn taught Shams al-din Muhammad ibn 'Ali ibn Abi Raqba (or Ruqayba), the *muhtasib* (inspector of accounts in the market) of Fustat, who was in turn the master of Shams al-din Muhammad ibn Ahmad ibn al-Ziftawi, the well-known Mamluk calligrapher and author of the treatise *Minhaj al-'isaba*.
119. James, *Qur'ans of the Mamluks*, no. 40.
120. See above, Chapter 7, note 13.
121. Al-Safadi, writing in the fourteenth century, called it *thuluth ash'ar*; Ibn Iyas, writing two centuries later, called it simply *ash'ar*. *Ash'ar*, in the sense of hair strokes, also seems to come to mean outlined. The more common term for outlining is *tazmik*, from the verb *zammaka*,

used in the colophon of 705/1305–6 to refer to Aydughdi's work outlining Ibn al-Wahid's calligraphy. This meaning of *ash'ara* to denote outlining was current in later times. James, *Qur'ans of the Mamluks*, 254, n. 20, noted that in the catalogue of the manuscripts in the Khedieval collection produced at the end of the nineteenth century, the script of a Mamluk Koran manuscript is described as written in gold and outlined (*musha'ara*) with black ink.

122. Gacek, 'Arabic Scripts,' 145. This was the case with Ibn Basis, al-Nuwayri, al-Athari, and al-Saydawi, whose dates range from the early fourteenth century to the end of the period. Ibn Basis also claimed that it had been invented by his father. Al-Tayyibi's illustrations show a more rectilinear version than that used by Ibn al-Wahid. See al-Tibi, *Calligraphy According to Ibn al-Bawwab*, 90–3.
123. Al-Tayyibi's illustrations of *ash'ar* are found on pages 90–3, those of *jalil al-muhaqqaq* on 67–72. See also Mohamed Zakariya, *The Calligraphy of Islam: Reflections on the State of the Art* (Washington, DC, 1979), 22, 26, and fig. 24, the modern calligrapher (and expert on calligraphy) who describes *ash'ar* as a hybrid of *thuluth*, *muhaqqaq*, and *naskh* that was used for many large Koran manuscripts and often confused with *muhaqqaq*.
124. Gacek, 'Arabic Scripts,' 147.
125. According to al-Qalqashandi, *Subh al-a'sha*, 3:46–9, *tumar* could be written according to the rules of either *muhaqqaq* or *thuluth*, but according to al-Athari, *Inayat*, 270 and 273, cited in Gacek, 'Arabic Scripts,' 147 and n. 94, it should be written according to the rules of *muhaqqaq*.
126. Also illustrated in M. Uğur Derman, *The Art of Calligraphy in the Islamic Heritage*, trans. Mohamed Zakariya and Mohamed Asfour (Istanbul, 1998), pls. 50–1.
127. Gacek, 'Arabic Scripts,' 145.
128. According to al-Nuwayri, for example, *ghubar* was a smaller version of *riqa'*, just as *hawashi* was a smaller version of *naskh*. According to al-Qalqashandi, *ghubar* was derived from both *riqa'* and *naskh*, and according to al-Athari, it was a smaller version of *naskh* and had no filled loops (*tams*), though he added that some blinding of letters may be allowed.
129. Al-Tibi, *Calligraphy According to Ibn al-Bawwab*, 58–63.
130. Al-Qalqashandi, *Subh al-a'sha*, 3:128–9.
131. Gacek, 'Arabic Scripts,' 146.
132. Al-Tibi, *Calligraphy According to Ibn al-Bawwab*, 83–4.

Other Styles and Centers

THE MAIN REGIONS where fine calligraphy was produced in the Islamic lands during the later middle period were Iran and Iraq under the Mongols and Turkomans (Chapter 7) and Egypt and Syria under the Mamluks (Chapter 8), but distinct styles of Arabic script also developed in other regions. Three stand out: Anatolia, which was partitioned among various principalities known collectively as *beyliks*; India, notably the northern half, which was under the control of the Delhi sultanates; and the Maghrib, which was divided between three rival Berber dynasties in North Africa and the Nasrids in southern Spain, or Andalusia. Calligraphers and clerks in Anatolia and India, regions bordering Iran that were opened to full-scale Islamization only in this period and used Persian as the main literary language, adopted the metropolitan styles developed in nearby Iraq and Iran under Yaqut and his followers, a natural development in this age of Mongol prestige and Persianate culture. The Maghrib was different. By this period its population had already become heavily Islamicized, using Arabic as the language of writing and religion, and the styles of calligraphy there developed from local roots (see Chapter 6).

In this period merchants and mystics also carried Islam to other areas, and the calligraphic styles that developed in these three provincial regions, in turn, seem to have been the source for styles elsewhere, particularly for Koran manuscripts which were used in proselytism. Thus, the bilingual Koran manuscripts produced in Anatolia seem to have been carried to Central Asia and thence to China, where calligraphers in this period began to produce their own Koran manuscripts, which bear many similarities to those that had been produced in Anatolia and Iran. Similarly, Indian manuscripts in the distinctive *bihari* script were transported to the Yemen, where they set the foundations for a local style. *Maghribi* manuscripts too may well have been carried across the Sahara to central Africa, but none has survived the vicissitudes of the hot and humid climate there.

The styles used in various places often share many features, particularly as calligraphers, patrons, and manuscripts often moved. Shirazi calligraphers, for example, took the *naskh* with long swooping tails marked by an angled bend, a distinctive style associated with

the patronage of the Timurid prince Ibrahim Sultan in Shiraz in the opening years of the fifteenth century (Figure 7.10), along with related styles of painting, to both Anatolia and sultanate India. The movement of people and books, the transference of designs through paper models, and the ability of calligraphers to copy the styles used elsewhere can make it difficult to distinguish a manuscript penned in Anatolia from one made in sultanate India at approximately the same time. The same bilingual copy of the Koran (Figure 9.2), for example, has been attributed to Anatolia, Central Asia, and India. The difficulty in localizing individual styles is exacerbated by the lack of rigorous studies on the calligraphy from this period, as scholars, particularly Westerners, have traditionally focused attention on the kufic styles associated with the early period of Islam. Until more work is done, we must depend heavily on colophons and other criteria, including types of paper and styles of painting, to establish regional groupings among the large mass of fine calligraphic specimens that survive from this period.

Anatolia

Anatolia, the plateau corresponding to modern-day Turkey, had been Islamized since the eleventh century, but only in the period 1250–1500 is it possible to trace a distinct tradition of calligraphy there. The first center of production was Konya, the city in the middle of the region that was the capital of the Rum Saljuqs, who ruled in name, if not always in fact, from 1081 until the beginning of the fourteenth century. The manuscripts produced there cover a range of subjects and were designed to fit different clienteles. Some are copies of the Koran, at least one a pocket-book,¹ but the main language at the court of the Rum Saljuqs was Persian, and many manuscripts contain works of Persian literature.² A few are prose,³ but fine manuscripts of Persian verse are more common. The first surviving copy of Firdawsi's *Shahnama*, a fragment dated 614/1217, can be attributed to Konya and the patronage of the Rum Saljuqs.⁴ So can the earliest copies of Jalal al-Din Rumi's rhyming poem, *Mathnavi-yi Ma'navi* (The *Mathnavi* of Intrinsic Meaning), including a manuscript finished in Rajab 677/November–December 1278 (Figure 9.1).⁵ Some of these manuscripts were also illustrated. One, if not the earliest illustrated Persian manuscript to survive – a copy of Ayyuqi's verse romance *Varqa and Gulshah* – is attributable to Konya c. 1250.⁶ Other illustrated manuscripts made there contain traditional favorites, such as the animal fables known as *Kalila and Dimna*, found in a manuscript dated 661/1262.⁷

Despite the variety of subject, language, and format, all of these manuscripts are written in *naskh*, which was the main text script in Anatolia, as in nearby Iran. The *naskh* hands range in aspect, from the loose, rather sprawling one used for the manuscript of *Varqa and Gulshah* to the tighter, more controlled one used for the *Kalila and*

Dimna. We can use a page from the copy of the Rumi's *Mathnavi-yi Ma'navi* (Figure 9.1) as representative. The author, Jalal al-Din Muhammad (d. 1273), known as Balkhi (from Balkh, his home town), Rumi (from Rum, meaning Anatolia), or Mawlavi (our master), is regarded as the greatest master of Persian mystical verse.⁸ This voluminous 27,000-verse poem, an encyclopedia of Sufism that the Timurid poet Jami called 'the Koran in the Persian tongue,' is only part of his prodigious output, written largely in ecstatic trances. After Rumi's death, his tomb and hospice in Konya became the center of the Mawlavi order, which continued to gain fame under his son and successor Baha' al-Din Sultan Valad until it become one of the best-known Sufi orders in Islam, famous for its devotion to the arts, especially music.⁹

According to the endowment registration on folio 312b, this manuscript was given to Rumi's shrine in 678/1279 by Jamal al-din 'Abdallah ibn Mubarak, freed slave of the Seljuq vizier Fakhr al-Din 'Ali ibn Husayn known as Sahib Ata.¹⁰ It had been transcribed the year before by Muhammad ibn 'Abdallah al-Qunyavi al-Validi from an archetype that had been corrected and emended by the author and his assistant Husam al-Din Chelebi. The manuscript therefore seems to be the first clean copy of the text to survive.¹¹ Each regular page has twenty-nine lines of text in four columns, although on the opening pages (Figure 9.1) the text is reduced to seventeen lines and two central columns that were then framed by wide gold margins. This manuscript is an almost exact contemporary of the Koran codex transcribed by Yaqut at Baghdad in 685/1286 (Figure 7.1), and comparing the two manuscripts shows the differences between de luxe editions of Persian poetry and Arabic prose produced in Anatolia and Iraq in the later middle period.

One major difference is size. This copy of Rumi's *Mathnavi* is remarkably large. Each of the 312 pages of thick paper measures 50 × 32 cm. The sheets are thus half-*baghdadi* size, far bigger than other manuscripts produced in Anatolia at this time and twice the size of the sheets in Yaqut's Koran manuscript, which are one-quarter *baghdadi* size. The pages in the Rumi manuscript are the first examples of such standardized large sheets of paper to survive, pre-dating by a generation the half-*baghdadi* sheets used in Koran manuscripts transcribed by Ahmad al-Suhrawardi (Figure 7.2) and his contemporaries. The use of such very large paper for a copy of Rumi's lyric poetry not only shows the wealth available to this Sufi order in Anatolia and its connections to the metropolitan school in Iraq and Iran, but also indicates that innovations such as large and standardized sheets, like the medium itself, may well have been used first for non-Koran manuscripts and only later for copies of the Koran.¹²

Both the *Mathnavi* and the Koran manuscripts have some three hundred folios, and so to fit the long poem in a single-volume codex, Muhammad al-Qunyavi penned more than twice as many lines per page as Yaqut did and used lines that are only two-third as high.¹³ The

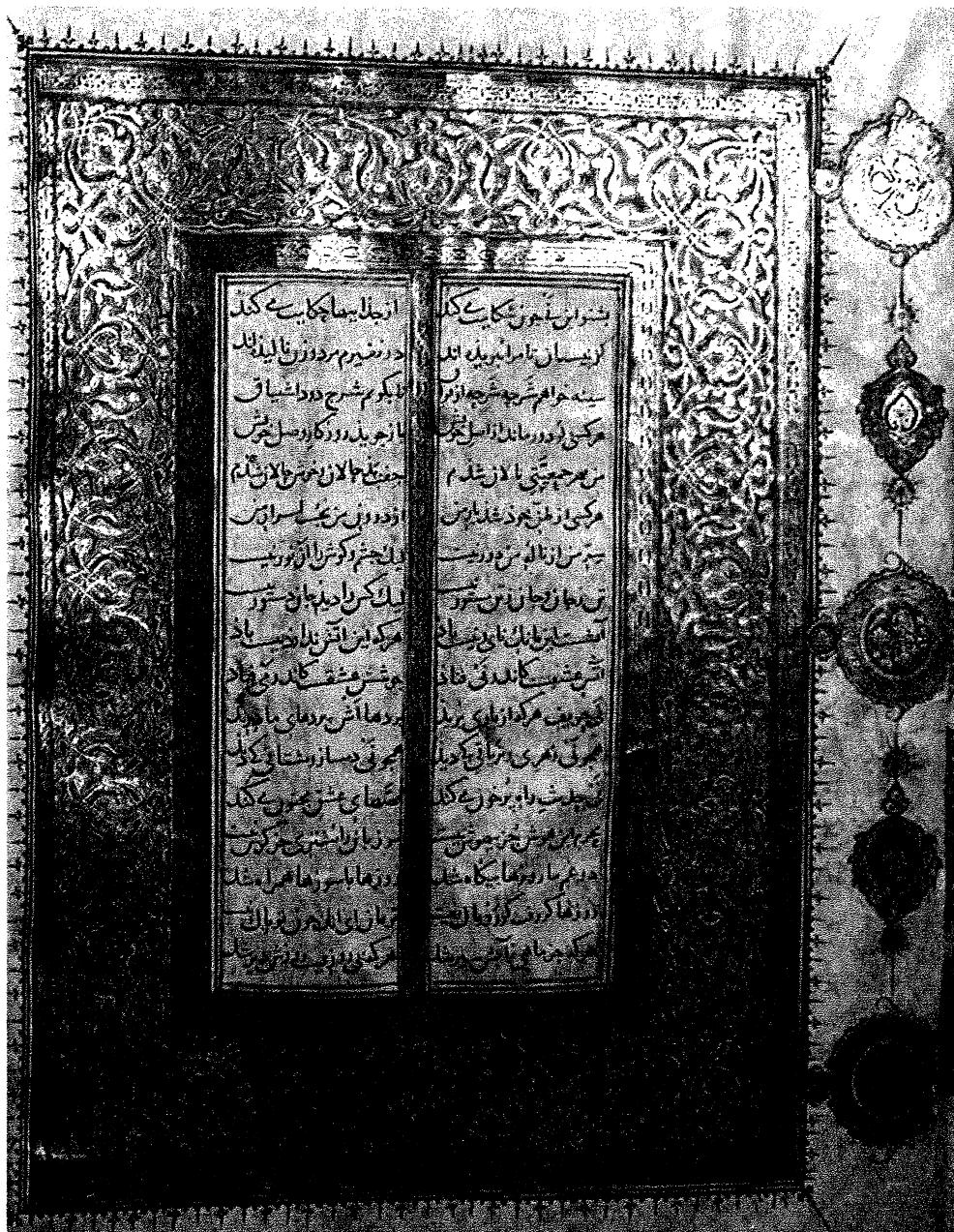


Figure 9.1 Opening text page from a copy of Rumi's *Mathnavi-yi Ma'navi* with twenty-nine lines per page transcribed by Muhammad ibn 'Abdallah al-Qunyavi al-Valadi in Rajab 677/November–December 1278.

This is the first clean copy of Rumi's lyric masterpiece, once called the *Koran* in Persian verse, to survive. The large-size manuscript is transcribed on paper of half-*baghdadi* size, the first surviving example of such

large paper, which was then used under the Ilkhanids at the beginning of the fourteenth century for monumental *Koran* manuscripts. The text is transcribed in a regular and readable *naskh*, and the large size and fine gold illumination show the resources available to the Sufi order in Konya in the late thirteenth century.

Rumi text is thus more compact. The two calligraphers choose different scripts for the different subjects – *naskh* for the poetry, *rayhan* for the Koran – and different methods to ensure textual accuracy. Muhammad al-Qunyavi used the traditional pointing system for Persian, in which *cha*' is marked with a single dot and *dal* is transcribed as *dhal*, as in the *chun* and *konad* in the opening line (Figure 9.1a). Like Yaqut, Muhammad al-Qunyavi also used a small *ha*', *sad*, or *'ayn* to mark unpointed (*muhmala*) letters, as in *hikayat* in the second hemistich of the first line or *muharram* at the beginning of the fourth line from the bottom. Final *ha*' is often connected to the preceding *dal* or *ra*', as in the words *biburida* and *nalida* in the second line. This feature, often known as the Yaquti connection, is also found in the Ayyuqi manuscript copied c. 1250, showing that Yaqut simply standardized a feature that had been typical in the area for some time. In Rumi's poem, short vowels are unmarked, as meter and rhyme provide clues to pronunciation. In contrast, the Arabic prose in Yaqut's Koran manuscript is fully pointed and vocalized, and the repeated long slashes used to indicate short vowels add rhythm and order to the visual aspect of the page.

The calligraphic aspect differs as well. Muhammad al-Qunyavi's *naskh* is clear but jerky. Individual words slope slightly from upper right to lower left. *Alif* is tiny and serifless. By contrast, Yaqut's *rayhan* is compact and posed firmly on a flat baseline. Letters are of uniform size, and *alif* bears his characteristic spiky serif. Muhammad al-Qunyavi's strokes vary in width, particularly the tails of final *nun*, *ta*', *ya*', and similar letters, which extend further both vertically and horizontally and thicken at the tip. Yaqut's strokes, by contrast, are of uniform thickness. In addition, Muhammad al-Qunyavi's words crowd and pile up at the end of the hemistich, whereas Yaqut's are evenly spread out across the line. Over the course of the next century, calligraphers will exaggerate these traits found in Muhammad al-Qunyavi's *naskh* until they mature into a full-fledged *nasta'liq*. In contrast, Yaqut's more refined and balanced hand leads to the imperial Koran manuscripts transcribed in *muhaqqaq* by his followers in the next generation.

Another point of contrast between the two manuscripts is the illumination. In both cases it was probably done by a separate person. That in the Rumi manuscript was executed by Mukhlis ibn 'Abdallah al-Hindi. His name suggests that he, like the calligrapher of this manuscript, was a first-generation convert to Islam, but his epithet al-Hindi (from India) suggests that he emigrated from afar. He worked on various types of manuscripts made for various local patrons, for he also illuminated the pocket-size Koran manuscript produced at the madrasa of Sa'ad al-Din Kubak in Konya. Yaqut probably worked with an unnamed illuminator, and the team approach was clearly the standard with his followers, not only in Iraq with Ahmad al-Suhrawardi, who worked regularly with Muhammad ibn Aybak ibn 'Abdallah on thirty-volume Koran manuscripts (Figure 7.2), but also

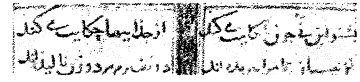


Figure 9.1a

in Egypt with Ibn al-Wahid, who worked with a team of three illuminators for his seven-part Koran manuscript (Figure 8.13).

Nevertheless, the amount and type of illumination differs in the two manuscripts. At least one area of difference – the rulings around the written area – is due to subject matter: in the copy of Rumi's *Mathnavi*, the rulings regularly run over the text (Figure 9.1a), whereas in Yaqut's Koran manuscript (Figure 7.1a) they carefully skirt the sacred word. Other differences seem to be due to local traditions. The Rumi manuscript (and the pocket-size Koran manuscript made in Konya) is lavishly illuminated with twenty full or 'carpet' pages composed of central fields surrounded by borders as well as other double pages like this one with a central field of text surrounded by wide gold borders.¹⁴ On all of them, the illuminated block is set within two thin blue rulings decorated with corner finials and repeating tricorn motifs. The outer edges of the pages are further embellished with roundels and ovoid cartouches that resemble the five and ten verse markers in Koran manuscripts, but with knotting or strapwork replacing the inscribed words. Koran manuscripts by Yaqut and his followers have similar marginal decoration and opening double pages with elaborate frames, some of it redone in later times, but no full pages of illumination. When commissioning de luxe copies of Rumi's masterpiece or of the Koran, Sufi patrons in Anatolia expected lavish illumination; when using a fine copy of the Koran in Baghdad, the reader expected refined calligraphy.¹⁵

With the dissolution of Saljuq power in the fourteenth century, much of Anatolia passed under the political sway of various local principalities, or *beyliks*, but the Mawlawi shrine at Konya continued to be a center of manuscript production under Sultan Valad (d. 1312) and his successors.¹⁶ Some manuscripts produced there were, naturally, copies of Sufi works by Jalal al-Din and his son, and they continue the traditions of calligraphy (and illumination) already established in the late thirteenth century.¹⁷ Members of the order also produced Koran manuscripts that combine elements from both the Ilkhanid and the Mamluk styles of calligraphy and illumination, to judge from a large thirty-part volume of the Koran, whose final section dated Rabi' I 734/November 1333 is signed by Husayn ibn Hasan nicknamed (*al-mulaqqab bi*) Husam al-Mawlawi.¹⁸

Though the most important, Konya (and the Mawlawi shrine there) was not the only center of manuscript production in the region during the thirteenth and fourteenth centuries, and another group of Koran manuscripts can be traced to eastern Anatolia/north-western Iran. The manuscripts in this provincial group are distinctive, both visually and textually: they are written in an unusual – and somewhat ungainly – hybrid script, and they have an interlinear translation in Chaghatay and/or Persian. The dates for the group are bracketed by three datable or dated codices: a manuscript with both the Persian translation of al-Tabari's commentary and a Persian interlinear translation made for Rabib al-Din Abu'l-Qasim Harun ibn 'Ali

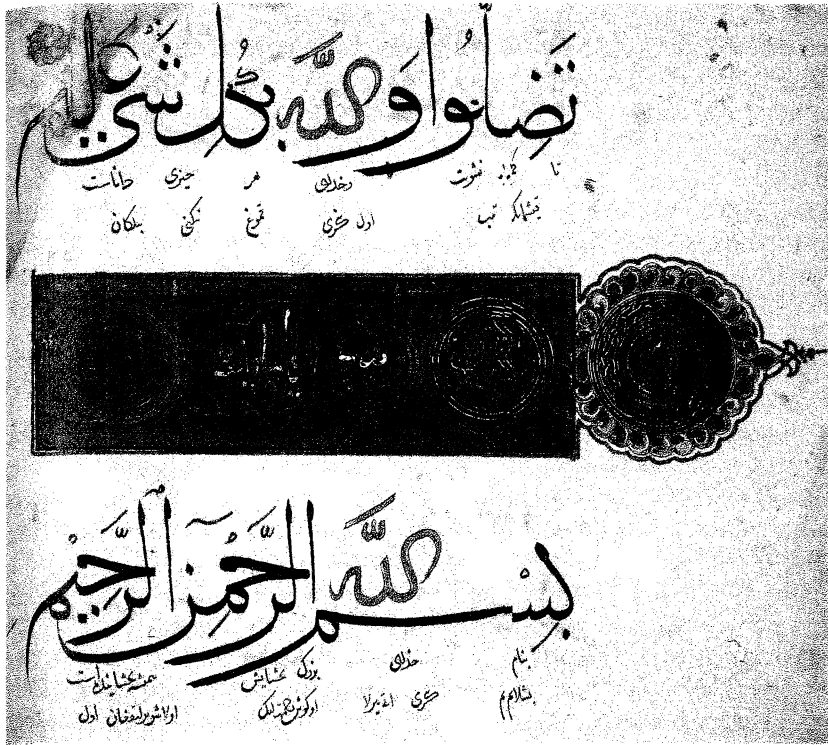


Figure 9.2 Page with Suras 4:176–5:1 from a thirty-volume Koran manuscript with three lines per page and interlinear translations in Persian and Chaghatay Turkish.

This Koran manuscript is one of a provincial group with distinctive and idiosyncratic calligraphy and illumination and interlinear translations in Chaghatay and/or Persian that can be attributed to eastern Anatolia/north-west Iran in the thirteenth and fourteenth centuries. The script is visually distinct, with a marked contrast between thin and thick strokes and special forms of individual letters, such as *mim* with a swooping tail and *kaf* with a little *kaf* instead of a bar. This particular copy can be dated to the early fourteenth century on the basis of the Chaghatay used in the translation and by comparison to other dated manuscripts.

ibn Zafar Dindan, who served as vizier to the last Atabeg of Azerbaijan, Muzaffar al-Din Uzbek, from 1220 to 1225;¹⁹ and two copies with Chaghatay translations, the first transcribed by Muhammad ibn Shaykh Yusuf al-Abari and finished on 10 Ramadan 737/12 April 1337, and the second dated mid-Rabi' II 764/January–February 1363.²⁰ We can take a page from a fourth manuscript – a copy with interlinear translation in two languages, most of which is now in the John Rylands Library in Manchester (Figure 9.2) – to represent the group.²¹

The Koran manuscripts in this provincial group are all multi-part, but the format and number of lines per page vary: this page belongs to a thirty-volume copy with three lines to the page. At least one other copy follows the same format, but two others are different.²² The manuscripts also range in size and shape: this one is landscape, almost squarish (29 × 27 cms). The other dispersed manuscript with three lines per page is the same height, but narrower (29 × 19 cm); the others are also portrait and range in size from medium to large.²³ Despite these physical differences, which imply a lack of standardization and a single school of production, these manuscripts share a common style of calligraphy and illumination. The script combines traits from both the *thuluth* and *muhaqqaq* styles used in the metropolitan areas. It is exaggerated and idiosyncratic in aspect. Strokes vary in thickness. Most are thick, but a few are thin, as here with the



Figure 9.2a



Figure 9.2b



Figure 9.2c



Figure 9.2d

lam of *bi-kul* in the first line (Figure 9.2a) and the *alif* and *lam* of *al-rahim* (Figure 9.2b) in the third line. Many letters have distinct shapes. Final *mim* at the end of the line, for example, has a long swooping tail. It typically descends below the other letters, as here in *'alayhim* and *al-rahim* (Figure 9.2b), but can extend halfway down the page.²⁴ Other tails are extended horizontally. The tails of *waw* and *nun* often curve forward to encompass the following word, as here in *al-rahman*, and final *ya'* often curves back under the preceding word, sometimes projecting all the way across the right margin.²⁵ *Kaf* is written with a little *kaf* at the top of the stroke, as here in *bi-kul* (Figure 9.2a). Final *ha'* has a tall upstroke with an ovoid eye and is often surmounted by the initial form of the letter with a long tail (Figure 9.2c).²⁶ In this manuscript, as in the pocket-sized one made in Konya in 677/1278 and the Arabic/Chaghatay manuscript dated 737/1337, the word *allah* is written in gold so that it jumps out from the rest of the text. Here, however, it is done in a single fluid stroke in which *alif* connects to *lam* (Figure 9.2d). Many of these paleographic features are also found in manuscripts produced in Anatolia, such as the large Koran codex copied by the Mawlawi Sufi in 734/1333.²⁷ So are many features of the illumination, such as the losenges and strapwork in the chapter titles and the red-hatched ground.²⁸ Though scholars have proposed various locales for these manuscripts, ranging from Anatolia to Central Asia and even India, the close relationship of both script and illumination to other manuscripts (and objects) produced in Anatolia suggests that is the correct provenance for this manuscript and the center of production for the group.

Most Koran manuscripts in this group contain a single translation written in a small *naskh* diagonally (or in one case, in zig-zag lines) below the Arabic, but the Rylands manuscript (Figure 9.2) contains two translations. The upper line is Persian, the second in Chaghatay. János Eckmann, a Turkologist who studied the text in this manuscript extensively, suggested that the translation, which displays Qarakhanid language with Khwarazmian touches, had been made in the twelfth or early thirteenth century.²⁹ Innovations introduced by the copyist, however, suggest that this particular manuscript was made later. On the basis of the paleography, Eckmann attributed it to the second half of the thirteenth or the first half of the fourteenth century.³⁰ The period 1310–69 was the time when a group of poetic, juridical, linguistic, and religious works, including translations of the Koran, were composed in Chaghatay. Many authors were bilingual, writing in both Persian and Chaghatay.³¹

On the basis of other considerations such as format and illumination, David James attributed this particular manuscript to the patronage of the Qaramanids, a Turkoman dynasty with Sufi roots that controlled south-central Anatolia and the Mediterranean and were noted for their encouragement of Turkish, rather than Persian, as the language of administration.³² Individual volumes of this type

of multi-part manuscript were read when placed open on a wooden Koran stand, known as a *rahla*,³³ and David James connected the unusual squarish shape and palmette border of the Rylands manuscript to a specific Koran stand made in 677/1278–9 for the tomb of Jalal al-Din Rumi and preserved in the Konya Museum.³⁴ Such bilingual Koran manuscripts would have been especially useful to new converts to Islam as well as for proselytism. Sufi brotherhoods were instrumental in bringing Islam to Anatolia, and Sufis' role in at least one of these bilingual manuscripts (the one in Mashhad) is clear from its copyist, who was the son of a Sufi shaykh.³⁵

Sufis were also active in spreading Islam among the Turks of the steppe,³⁶ and they and others must have taken such bilingual Koran manuscripts across Central Asia as far as China. The growth of Muslim communities there necessitated the production of Koran manuscripts, and the earliest codices made in China date from the fifteenth century. The first dated copy of the Koran known to have been made there (Figure 9.3) was, according to the colophon, transcribed and illuminated by one Hajji Rashad ibn 'Ali al-Sini (the Chinese) on the last day of Muharram 804/9 October 1401 in the Great Mosque in Khanbaliq (modern Beijing), which is identified as one of the cities of China.³⁷ A second manuscript in the same collection, was, according to its colophon, transcribed by Shams al-Din ibn Taj al-Din in the Dar al-Hadith Madrasa in Madinat Yunnan, again identified as one of the great cities of China, on 1 Ramadan 875/21 February 1471.³⁸

These two Koran manuscripts made in China in the fifteenth century share many features. Each of the surviving volumes is a *juz'* from a thirty-part manuscript, the standard type used in Iran for presentation copies made in Iraq and Iran since the fourteenth century (Figure 7.2). The two Chinese volumes share the same format: both measure 25 × 17 cm and are therefore quarter-*baghdadi* or medium size, with five lines to the page set inside a double red ruling. Both have black ink for text and vocalization and red ink for other punctuation such as full stops, a combination used in contemporary Timurid Koran manuscripts (Figure 7.11). In short, the layout derives from the metropolitan style developed in Iraq and Iran.

The idiosyncratic script, however, resembles that used in the provincial group with interlinear translation (Figure 9.2). Both of the two Chinese manuscripts are copied in a variant of *muhaqqaq* script. Vertical strokes are particularly thin, and the hook at the top is large and often detached from the vertical stroke, so that the letter looks like a flag. The serif was probably written separately. Final *ha'* is a large ovoid loop (Figure 9.3a), and some letters, especially *ra'*, *mim*, and *ayn*, have exaggerated tails that project into the margin or the line below. *Kaf* is sometimes written with a little *kaf* in place of a bar. There are also occasional unauthorized connections between letters, especially in common pairs of letters, such as *alif-lam*, or in common phrases, such as *'ala kull shayin* (Figure 9.3b). To judge from his

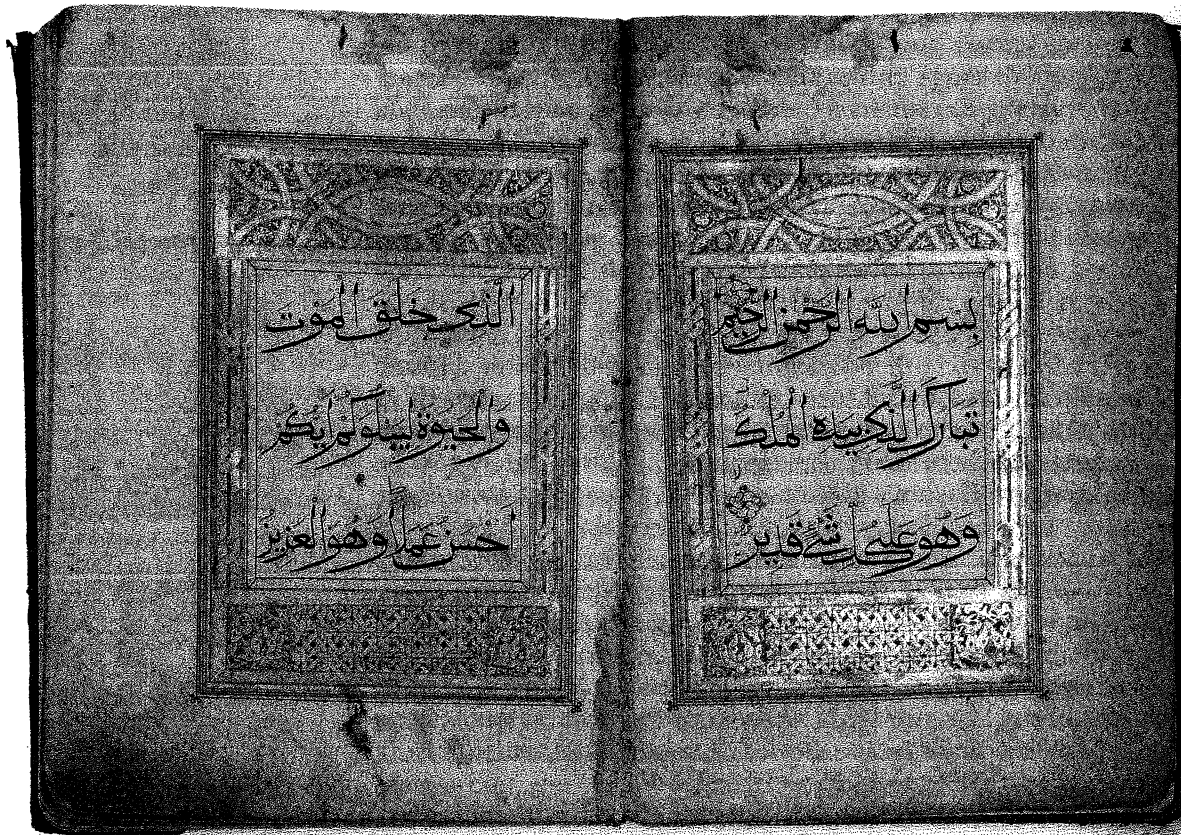


Figure 9.3 Double page with Sura 67:1–2 from juz' 29 in a thirty-volume Koran manuscript with five lines per page transcribed by Hajji Rashad ibn 'Ali al-Sini on the last day of Muharram 804/9 October 1401 in the Great Mosque of Khanbaliq.

This is the earliest Koran manuscript known to have been made in China. Like most copies made there, this section belongs to a thirty-part manuscript. It is modeled on copies made in Anatolia and central Asia in the thirteenth and fourteenth centuries with losenge-shaped cartouches and a distinctive *muhaqqaq* script with long terminals and unauthorized connections. Chinese motifs include the peony and cloud bands used on the binding and opening medallion.



Figure 9.3a



Figure 9.3b

name, Hajji Rashad ibn 'Ali, the calligrapher of the earlier manuscript, was a second-generation Muslim who had made the pilgrimage to Mecca, but he was not an experienced Arabist.³⁹ His text contains mistakes. Some have been corrected by pasting new pieces of paper with rewritten text on top of the mistakes, but others remain.⁴⁰ They show that writing Arabic was a new phenomenon in China at the turn of the fourteenth to fifteenth centuries.

The illumination of the two Chinese Koran manuscripts in the Khalili Collection also relates to the group with interlinear translation. The opening pages share the same format of large panels at the top and bottom connected by frames as well as individual elements,

such as ovoid and oblong cartouches (Figure 9.3). The manuscripts made in China, however, incorporate distinctly Chinese motifs, including peonies and a cloud-band used as the opening medallion and on the binding on the earlier manuscript. In both cases the cloud band has been transformed into Arabic writing, with the basmala on the binding and the rhyming phrase *a'udhu bi'llah min al-shaytan al-rajim* (I take refuge in God from Satan the accursed) in the opening medallion.⁴¹ This type of multi-part Koran manuscript with five lines to the page remained standard in China for many centuries.⁴²

In Anatolia, the Qaramanid rulers of central and eastern Anatolia were eventually absorbed by a rival *beylik*, that of the Osmanlis, or Ottomans, who became the most successful of all the independent principalities that flourished in the region during this period, expanding their realm to include much of the plateau and all of Thrace. The Ottomans' original home lay on the Byzantine frontier in north-west Anatolia, and their first capital was on the northern foothills of Mysian Olympus (Mt Ulu Dag) at Bursa. It was an important center of the silk industry, and even after the Ottoman capital was moved to Edirne in 1402, Bursa retained its pre-eminence as the site where the early Ottoman sultans were buried.⁴³ It was also a center of manuscript production.⁴⁴

The finest manuscript produced for the Ottomans in the early fifteenth century is a very large single-volume copy of the Koran.⁴⁵ Regular pages in the 282-folio manuscript have nine lines of text on an unframed page that varies in color between cream, ocher, and pink. The top, middle, and bottom lines are penned in a large *rayhan*, the others in a smaller *naskh*. The middle line is written in gold outlined in black, the others in black. *Sura* headings are penned in white *thuluth* set against a red and gold scrolling ground. The two sets of opening pages in this Koran manuscript (Figure 9.4) are more elaborate. At the top and bottom are large lines of stylized kufic set against a scrolling arabesque. These headings give the names of the *suras* and pious phrases about the revelation. The intermediate lines of text are reserved in cloud bands, and the intervening ground filled with a floral arabesque in blue and gold set against pink hatching with the occasional triple-dot pattern. The same design is found in a musical treatise entitled *Maqasid al-alhan*, transcribed by Muhammad ibn Muhammad ibn 'Ilyas for the Ottoman sultan Murad II in 838/1434–5, and so this copy of the Koran can be attributed to the same milieu and date.⁴⁶

The splashy Koran manuscript in Bursa shows how calligraphers in Anatolia adopted the Six Pens standard in Iran during this period. On regular pages, the calligrapher juxtaposed different sizes of script, an arrangement particularly popular in Iran, as with the Koran manuscript transcribed by Zayn al-'Abidin ibn Muhammad al-Shirazi for the Aqqoyunlu ruler Ya'qub Beg in 888/1485 (Figure 7.12), but less so in Egypt and Syria, where reading was more important than appearance, for the odd arrangement somewhat disturbs the flow of

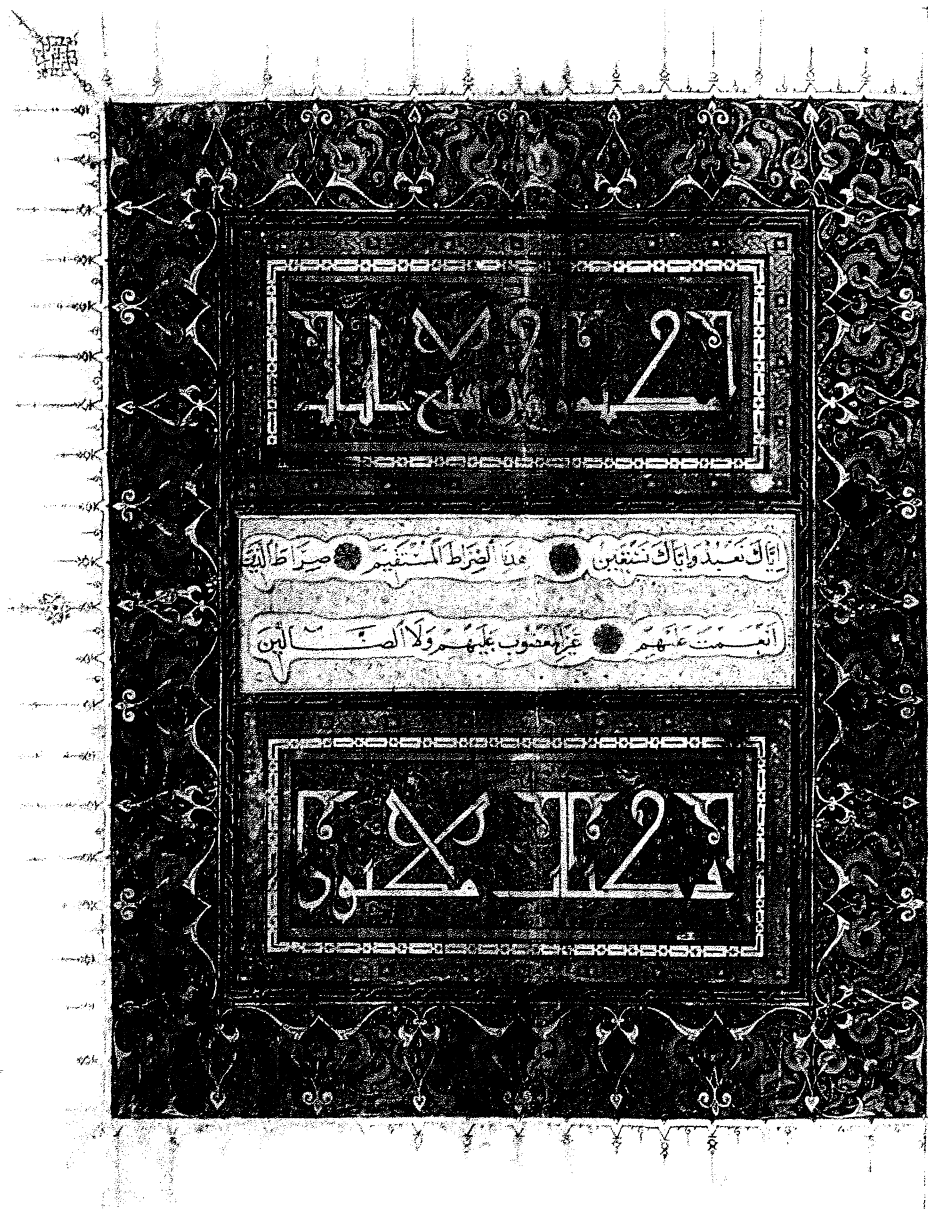


Figure 9.4 Page with Sura 1:5–7 from a single-volume Koran manuscript with nine lines per page.

This is the finest manuscript produced for the Ottomans in the early fifteenth century. Although unsigned and undated, it can be attributed to Bursa in the second quarter of the century on the basis of similarities to a musical treatise made there for Sultan Murad in 838/1434–5. The manuscript displays the combination of round scripts popular in Iran. The round *naskh* used for the main text has the big bowl on *nun* found in the Shirazi style that was exported to both east and west.

continuous text. The stylized kufic used for the headings in the Bursa manuscript also continues the type used since the early fourteenth century in Koran manuscripts produced for both the Ilkhanids (Figure 7.2) and Mamluks (Figures 8.1 and 8.5), but the letters have been further attenuated, with the tops of the stems bent at right angles and additional but textually irrelevant devices added to form symmetrical pairs. The main text scripts derive from those used in contemporary Iran, especially Shiraz. The *naskh* used for the text is a small neat hand with the large bowl on final *nun* and other letters typical of the Shirazi style that was transported to both Anatolia and India. The large line of *rayhan* for the middle line, with blind eyes, resembles the one used in the Koran manuscripts penned by the Timurid prince Ibrahim Sultan.⁴⁷

Using these models, the anonymous calligrapher of the Bursa Koran penned a good but not great hand. His spacing is occasionally awkward, so that he had to squeeze in some letters at the end of the line, as here at the top left. Individual letters and connections between letters are also stilted, as in the word *al-muflihun* (those who will prosper) in the center of folio 3a (Figure 9.4a) where the *fa'* is ungainly and pitched slightly to the right and the connectors to *lam* and *ha'* flat. The lavish illumination in this manuscript subsumes the mediocre hand, and the effectiveness of this manuscript derives more from size and color than from calligraphy.

After Timur's army had burned and plundered Bursa in 1402, the Ottomans transferred the capital to Edirne and then, following the conquest of Constantinople in 1453, to Istanbul, where the sultans and their courtiers became important patrons of the arts. Mehmed II (r. 1444–81, with interruption) maintained a large library of both Greek and Islamic manuscripts, and his vizier Mahmud Pasha was also an important patron of books.⁴⁸ They are mainly scientific treatises, but also include three copies of the Koran as well as several illustrated manuscripts.⁴⁹ Artists, particularly from Iran, were attracted to the new capital, where they created new styles in many media, including the book arts.⁵⁰ Papermakers developed a new and improved type of paper, with a harder sizing that allowed for a higher burnish. Illuminators also adopted a more brilliant style, with a lavish use of gold. Similarly, in the 1460s and 1470s bookbinders developed a new style, replacing the tan leather used earlier with a plain dark color, selected for maximum contrast to the burgundy doubleures decorated with filigree centerpieces against an intense gold ground. The increased demand for books to supply Mehmed's burgeoning library and the new religious complexes in the city meant that binders had to speed up production, so they introduced textile bindings, some covered with striped or plaid tabby, others with velvet covers.

The new style that permeated the Ottoman arts of the book in the 1460s and 1470s was heavily dependent on Persianate models. Whereas earlier taste had been modeled in part on Mamluk work,



Figure 9.4a

Persianate designs and practices based on exuberantly growing floral motifs now came to the fore in the so-called 'international Timurid style' disseminated through a central design studio (*naqqash-khana*) like the one that the Timurid prince Baysunghur had established at Herat in the early fifteenth century.⁵¹ Persianate models were also adopted for calligraphy, and calligraphers who emigrated from Iran, voluntarily or otherwise, were partly responsible for introducing new scripts.

Many of these new scripts can be seen in a stupendous scroll dedicated to Mehmed II (Figure 9.5).⁵² Measuring more than a meter and a half in length and written partly horizontally and partly vertically, the scroll contains a selection of texts. Most are in Arabic, including Koranic excerpts, prayers, and Traditions. At the end are panels of assorted scripts (*thuluth*, *ta'liq*, and *nasta'liq*) in white on a black ground with eulogies in Persian to Mehmed's saintliness (*'isa dust*), wise judgment (*asaf rayy*), and Solomonic justice. Beneath a panel in square kufic is the signature in *nasta'liq* of the calligrapher 'Ata'allah ibn Muhammad al-Tabrizi and the date 4 Rabi' I 862/28 January 1458. The scroll is a calligraphic *tour de force*, presumably intended to impress Sultan Mehmed, to whom it is dedicated.

The calligrapher, whose signature appears near the bottom, was one of the Persian scribes in Mehmed's chancery. To judge from his epithet, he was a native of Tabriz. He may have been attracted by the scriptorium that Mehmed had established in his new capital and designed the scroll to win the sultan's favor. It is thus a roll equivalent of al-Tayybi's calligraphic album dedicated to the Mamluk sultan Qansawh al-Ghawri (Figure 8.4).⁵³ 'Ata'allah was evidently successful in finding work in the Ottoman capital, for he later transcribed a fine copy of Rukn al-Din al-Astarabadi's treatise on rhetoric entitled *al-Wafiyya*, which was completed there during the last ten days of Rajab 871/26 February–7 March 1467.⁵⁴

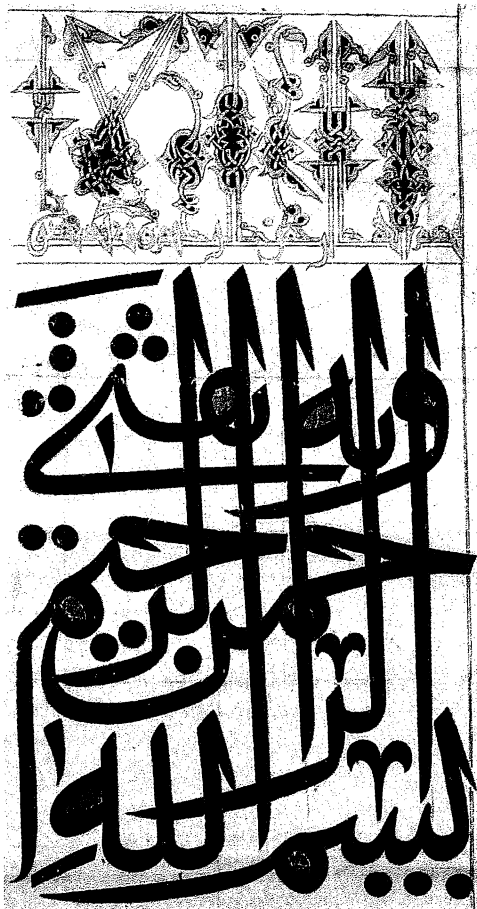
In addition to the Six Pens, the scroll dedicated to Mehmed contains examples of many other scripts. At the very top (not visible in this detail) is an illuminated heading in blue with gold chinoiserie lotus-scrolls typically of work from contemporary Shiraz. This is followed by a line of *thuluth* whose outlined letters spell out Koran 3:25, a well-known verse about God's majesty and power as master of the kingdom (*malik al-mulk*) who bestows the kingdom (*al-mulk*) on, and seizes it from, whomever He wills. Next comes the dedication, a pear-shaped medallion inscribed in large and bold *thuluth jali* in gold on a blue ground lauding Mehmed as the just sultan, the Solomon of his age. Beneath the medallion is another line of *thuluth* with the benediction asking God to perpetuate his Mehmed's kingdom (*mulk*) and sultanate.

Both text and script work to associate Mehmed with God. The Koranic excerpt mentions God's power over the kingdom, a term picked up in the benediction beneath, written in the same script. The two outlined bands frame and set off the large and colorful dedicatory



Figure 9.5 Details of a scroll signed by 'Ata'allah ibn Muhammad al-Tabrizi for the Ottoman sultan Mehmed II and dated 4 Rabi' I 862/28 January 1458.

The scroll illustrates the calligrapher's mastery of many different scripts. The top part includes a medallion with the name and titles of the sultan in *thuluth jali*, two forms of the basmala in kufic with interlaced stems and *muhaqqaq jali*, and a hadith in *muhaqqaq*. Other sections include work in square kufic and zoomorphic script, and the range of styles suggests that the scroll was made as a visual paean to the sultan.



medallion. Its text, *bi-rasm-i hadrat-i sultan-i 'adil sulayman-i zaman muhammad* (for the just sultan, the Solomon of the age, Muhammad) reads up from the bottom. The words are superposed and the letters intertwined around the tall stems so that they seem to stand like a row of fence posts rising from the curved bodies and bowls of the letters. The effect recalls the marching verticals of the Mamluk *tughra* (Figures 8.9 and 8.10). Over time, Ottoman calligraphers gradually exaggerated the stylization of the dedicatory medallion. They sometimes wrote the letters in mirror reverse, a technique called *muthanna* (doubled). They also intertwined and stacked words and added color, all for decorative effect. These features can be seen in the dedicatory rosette in a small copy of an anthology made for Mehmed's son Bayazid II (r. 1481–1512).⁵⁵ Form took precedence over meaning, as the designs were meant to be recognized faster than they were read. The trend culminated in the elaborate *tughras* designed for the Ottoman sultans and found at the top of all official documents (Figures 11.15–11.17).

Beneath this opening dedication on Mehmed's scroll is a line of kufic with interlaced stems containing the basmala and the phrase *wa bihi nasta'in* (and in Him we seek aid). Such a kufic with interlaced stems had been part of the epigraphic repertory in eastern Iran since the eleventh century, but by this period was reserved mainly for illuminated titles in manuscripts. This panel is set above a larger one in *muhaqqaq jali* with a similar text containing the basmala and the phrase *wa bihi thiqati* (and in Him is my trust). The *muhaqqaq jali* has the same juxtaposition of tall and regularly spaced verticals with round letters used in the dedicatory medallion. Visually, it once again connects Mehmed with God.

The scroll also contains another type of calligraphy derived from the epigraphic repertory: a panel in square kufic. This script, often called *banna'i* (builder's [script]) because of its origins in bricklaying, came to be known as *ma'qilli* (square) because of its shape.⁵⁶ In addition to architecture, it was used to write sacred names and pious phrases arranged in decorative patterns on paper and other materials such as cloth. Like the dedicatory medallion, these phrases in square kufic could be recognized visually faster than they could be read literally.

The scroll also contains one of the earliest surviving examples of zoomorphic calligraphy in which the figures of a bird and a lion are rendered in script. This type of script plays on the inherent ambiguity between text and image, meaning and form. Such calligraphic pictures became very popular in later times in both Iran (Figure 10.15) and Anatolia (Figure 11.14). Though the earliest example to survive, this design does not necessarily mean that the idea of calligraphic pictures developed under the Ottomans. Since the calligrapher 'Ata'llah seems to have emigrated from Aqqoyunlu Iran, it is much more likely that the idea of calligraphic pictures developed there. No examples have survived owing to the destruction of the Aqqoyunlu

archives, but 'Ata'allah's scroll gives us an idea of what kind of inventive work must have been produced there.

The new style of book art that developed in Istanbul in the late fifteenth century was spurred in part by the Ottoman conquests in north-west Iran. Mehmed, for example, requested rare books and albums (*muraqqa'*) as part of the ransom he demanded after capturing the Aqqoyunlu prince Yusuf Mirza in 1472. These works may have formed the basis of the collections of drawings and calligraphy in some of the albums now preserved in Istanbul.⁵⁷ Following the Aqqoyunlu defeat at Bashkent in August 1473 and the Ottoman conquest of Tabriz in the following year, Mehmed forcibly removed artisans to Istanbul, where they may have introduced further innovations to traditional styles.⁵⁸

The hanging *ta'liq* was one of the scripts that was transformed at this time; it changed from a chancery into a literary script and was used not only for documents but also for manuscripts. From the late fifteenth century, clerks in the Ottoman chancery, like those elsewhere, had used *ta'liq* for documents written in Persian. One of the first examples to survive is a *fathnama* issued by Mehmed I Chelebi c. 1415.⁵⁹ This type of proclamation or letter was issued to announce victory in battle or the successful conclusion of a military campaign.⁶⁰ The earliest examples, whose texts are preserved only in later accounts, were composed on the actual battlefield by one of the ruler's secretaries and were shorter and straightforward.⁶¹ *Fathnamas* produced later in the chancery were longer and more polished, and some even seem to have been more of a literary exercise than the usual type of propaganda. Many *fathnamas* issued after the conquest of Constantinople in 1453 and the establishment there of the royal chancery (*divan-i humayun*) are preserved in the archives of the Topkapı Palace.⁶² Magnificent specimens produced under Mehmed II are calligraphed in Persian in an extremely careful version of the hanging *ta'liq* script.⁶³ We cannot connect any of these court documents with named calligraphers, as the chancery clerks who produced them, technically known as epistolographers, did not sign their work.

For a short while, *ta'liq* was also used at the Ottoman court to transcribe manuscripts. A prime mover in the script's transmission and change of function was Sayyid Muhammad, a *munshi*, or clerk, in Mehmed's chancery.⁶⁴ To judge from the epithets used in his signatures, he came from a notable family in Shiraz.⁶⁵ According to the Ottoman historian Idris Bitlisi, Sayyid Muhammad served as secretary (*nişancı*) to the Aqqoyunlu ruler Uzun Hasan and was among those captured at the battle of Bashkent.⁶⁶ Once brought to Istanbul, Sayyid Muhammad found work as an epistolographer and calligrapher.⁶⁷ The earliest work that he made for the Ottomans is a collection of exemplary letters (*insha'*) copied for Mehmed in Rabi' I 881/July 1476.⁶⁸ The calligrapher's latest signed work is a *Risala*, or treatise, dated Ramadan 893/August–September 1488 issued under Bayazid II (r. 1481–1512).⁶⁹

Figure 9.6 Sufi treatise transcribed by Sayyid Muhammad Munshi at Istanbul in 882/1477–8.

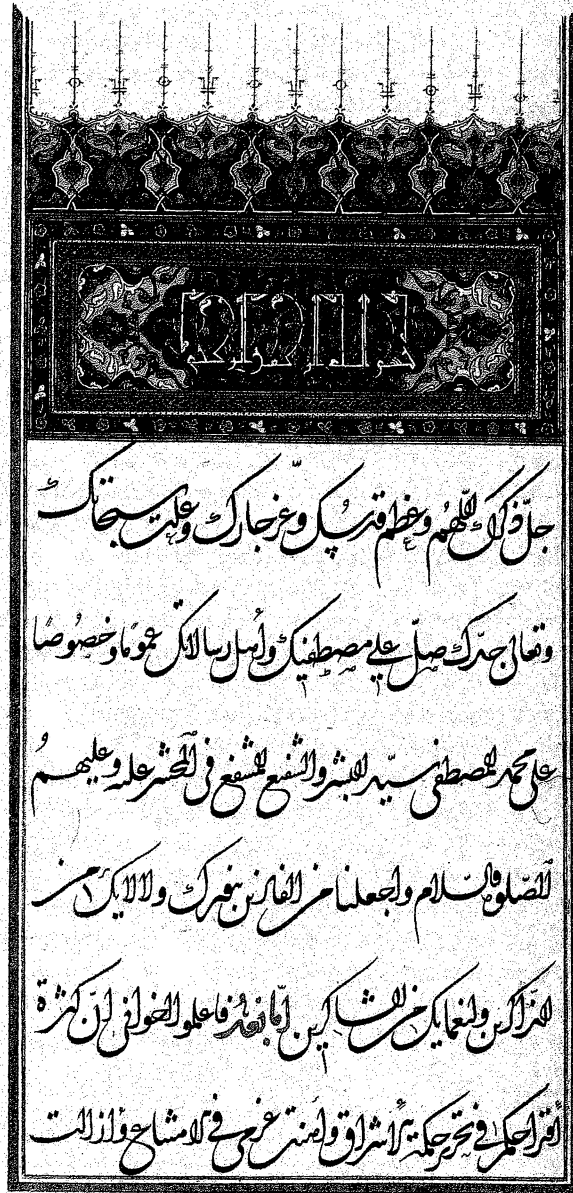
In the second half of the fifteenth century, clerks from the Aqqoyunlu chancery like Sayyid Muhammad Munshi introduced the hanging *ta'liq* style to the Ottoman chancery. It was used there not only for documents but also for literary works, including manuscripts and individual specimens. Sayyid Muhammad Munshi's style is regular, balanced, and rhythmic, features adopted from the contemporary *nasta'liq* style typically used for copying contemporary manuscripts in Persian.

والشفيع للشفيع في الحجة

Figure 9.6a

ذلك اللهم و

Figure 9.6b



A copy of Shihab al-Din al-Suhrawardi's sufi treatise *Hikmat al-Ishraq* dated 882/1477–8 (Figure 9.6) illustrates how the *ta'liq* style brought by Sayyid Muhammad Munshi from the Aqqoyunlu to the Ottoman court was transformed into a text script.⁷⁰ The calligrapher used many of the conventions seen in the calligraphic

specimen executed by the Aqqoyunlu clerk 'Abd al-Hayy ibn Hafiz Shaykh Muhammad al-Bukhari (Figure 7.14), such as the dotting of letters with two dots and a dagger. Sayyid Muhammad's script shows characteristic features of *ta'liq* like the left serif on *alif* and the unorthodox ligatures between letters. *Alif* is regularly connected to *lam* in the prefix *al-* (Figure 9.6a). The stylization is extreme in common words and phrases like the exhortation *allahumma* (O God), the third word in the treatise (Figure 9.6b). The stylization has extended to the kufic used for the basmala in the heading, whose strokes are thinner and more elongated than usual. Compared to the script used in Aqqoyunlu documents, Sayyid Muhammad's *ta'liq* is more even: the lines do not rise at the left and the last letter of each line is not as elongated. Individual words slope downwards, but the baselines are relatively flat. The elongated strokes on *kaf* form a strong rhythm, particularly in the opening line with the invocation. This is countered by the round fat tail of final *'ayn* as in *al-shafi'* and *lil-mushfi'* in line three (Figure 9.6a). Not surprisingly many of these features are adopted from *nasta'liq*, the hanging script used by calligraphers in western Iran at this time to transcribe Persian literature, especially poetry, and also adopted in the Ottoman court atelier. This attempt to turn *ta'liq* from a documentary into a manuscript script, was, however, short-lived. Under the Ottomans the hanging *ta'liq* style soon evolved into a distinctive script used for documents written in Turkish. Since this was developed by scribes working in the chancery (*divan*), it became known there as *divani*.

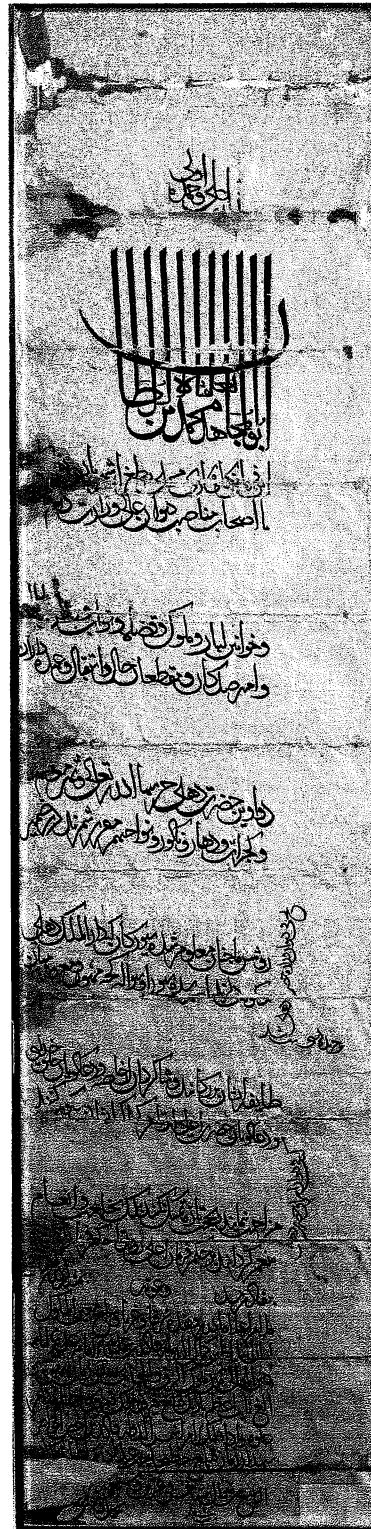
India

As early as the eighth century, sea-faring Muslims had carried Islam to the mouth of the Indus river, and in the eleventh and twelfth centuries the Ghaznavids and Ghurids had brought Islam overland from eastern Iran and Afghanistan into northern India. A few Koran manuscripts were produced in the region in succeeding centuries,⁷¹ but only under the sultans of Delhi (1206–1555) did northern India become a major center of Islamic culture and learning, with chanceries and scriptoria that produced many documents and manuscripts. A rare decree surviving from the period of sultanate rule shows how a distinct style of *ta'liq* developed from the round hand regularly used to transcribe manuscripts. The document (Figure 9.7), a long scroll made of paper backed with cotton, a combination of materials typical of the area, contains a proclamation issued at Delhi in 725/1325 on the orders of Muhammad ibn Tughluq.⁷² At the very top is an invocation to God. Below is the large *tughra*, or emblem with the ruler's name and titles, Abu'l-Mujahid Muhammad ibn Tughluq *al-sultan*. His name is written in an attenuated script with very long stems some five times the height of the bodies of the letters. This signature is extremely stylized: the *sin* of *al-sultan* is so short

Figure 9.7 Scroll on paper backed with cotton with twenty lines of script issued by Muhammad ibn Tughluq at Delhi in 725/1325.

This scroll is a rare example of a decree to survive from pre-Mughal India. It shows how the regular *naskh* hand used for transcribing manuscripts was transformed in a chancery hand that later became *ta'liq*.

The hand is marked by unauthorized connections and distinct forms of *kaf* with a long bar and *ra'* with an angled tail.



as to be virtually missing, and the *nun* is enlarged and set as a huge single letter which sweeps across the tall extenders like a bow. Mamluk sultans also used a related style of tall verticals in their *tughras* (Figures 8.10) and related metalwares (Figure 8.9) as did early Ottoman rulers in their dedicatory medallions (Figure 9.5), but this type of stylized script with elongated verticals became typical of Indian epigraphy, as in an extraordinary basalt panel commemorating a foundation in the Bengal capital of Gawr by the sultan Barbakshah in 871/1466–7.⁷³

The Tughluq decree was issued to ensure that government officials accord the Siurgan (non-Muslim) community favorable treatment in recognition of its loyalty. In subject, then, the Tughluq decree resembles the one issued by the Fatimids offering protection to the monks of Sinai (Figure 6.7), but the layout is different. Here, the twelve lines of text are written in pairs, with eight more closely set lines at the bottom giving the name of the issuing agent, Muhammad Tughluq's vice-regent (*na'ib-i 'azim*) Ulugh Barbak Qutluq Firuz Malik. The scripts in both decrees include several unorthodox connections, here notably *alif* to the following letter (Figure 9.7a) and *dal* to final *ha'* (Figure 9.7b). Nonetheless, this script is distinct. Although the lines slope upwards to the left, individual words are set on a slight downward slope, emphasized by the long, sloping bar of *kaf* that begins with a pronounced hook (Figure 9.7c). The final tail of a word, particularly *ya'* (Figure 9.7a), *nun*, and *kaf* (Figure 9.7c) is often extended in anticipation of enclosing the next letter or word, which is nested in the space created. The stroke often widens at the end into a wedge (Figure 9.7a). In other cases, the tail or final stroke is sharply angled. *Dal* is unusually large. In comparison to contemporary documents issued by the Ilkhanid (Figure 7.13) and Mamluk (Figure 8.11) chanceries, the Indian hand is much more jagged, with irregular rhythms and spacing.

As Francis Richard pointed out, the script used in the Tughluq decree resembles the round hand used for contemporary manuscripts, such as a copy of 'Ayn al-Qudat al-Hamadani's mystical treatise *Zubdat al-Haqa'iq* (The Cream of Truths) completed on Friday 3 Shawwal 796/1 August 1394.⁷⁴ Individual words in the manuscript also slope to the lower left and often contain unauthorized connections. Final *ra'* often ends with a sharp upwards hook, used repeatedly at the end of the sixth line of the document (Figure 9.7d). The text of the manuscript can be called *naskh*, but the one in the document is more mannered and verges on *ta'liq*. As in contemporary Anatolia, the scripts used in the chancery of the Delhi sultanate shared features with those used in contemporary manuscripts, and these samples document the development of a regional Indian style.

Over the course of the next centuries, calligraphers in the eastern lands, perhaps because of their geographical separation from Iran and the Mediterranean region, where the main calligraphic developments



Figure 9.7a



Figure 9.7b



Figure 9.7c

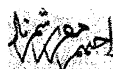
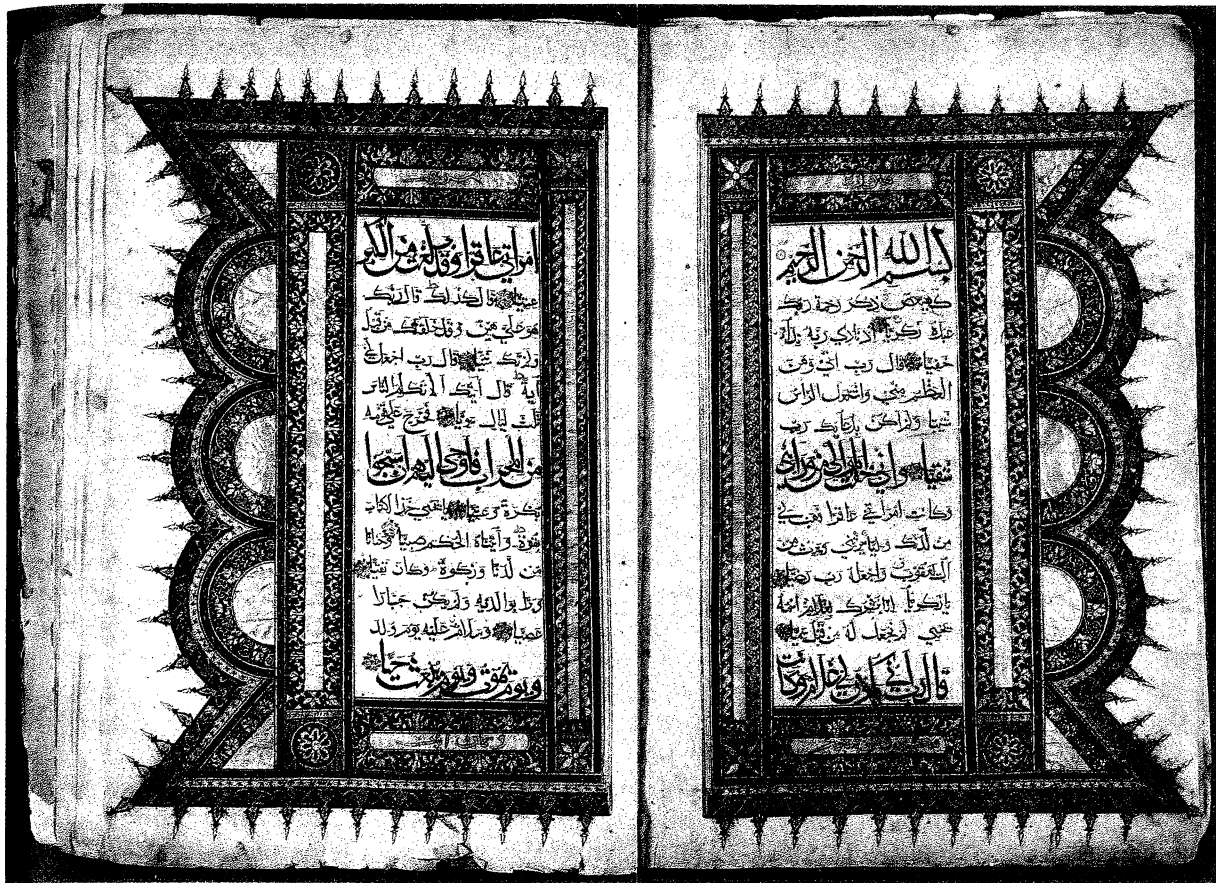


Figure 9.7d

were taking place, used an increasingly mannered script to transcribe the Koranic revelation. Like the *maghribi* style developed at the other end of the Islamic lands, the script used in India became extremely stylized and visually distinct. This stately and slow-moving script has wedge-shaped letters, with thick round bowls for endings and wide spaces between words. This tendency to wedge-shaped endings is already apparent in the Tughluq decree, as in the tails of final *ta*' of *hadrat* and final *ya*' in *dihli* and *ta'ala* (Figure 9.7a) in the fifth line of the text.

This distinctive script used exclusively in India came to be called *bihari*, but the origin of the name is obscure and even its correct vocalization disputed.⁷⁵ It is sometimes, without justification, thought to refer to the Persian word for spring (*bahar*). More probably, it refers to the state of Bihar in north-eastern India, a region usually under the sway of outside rulers: annexed by the Delhi sultanate in the fourteenth century, it belonged to the sultans of Jawnpur in the fifteenth and was later held by the kings of Bengal before it became subject to the Mughal sultans. In Muslim times Bihar itself was a relatively unimportant town surrounded by Buddhist monasteries (whence its name, from the Sanskrit *vihar*, monastery), and in the fifteenth century Shir Shah Sur transferred the capital of the province to Patna.⁷⁶

The earliest surviving manuscripts in *bihari* script date to the late fourteenth century. 'Abdallah Chaghatai refers to a Koran manuscript in the Kabul Museum in this style transcribed by Qadi Abu Bakr Ya'qub ibn Nasir al-Din at Lahri (Sind) on Friday 17 Rabi' I 776/26 August 1374, but this manuscript is unpublished and perhaps now lost.⁷⁷ Better known is a small copy of the Koran once in the collection of Sadruddin Aga Khan, completed, according to the colophon, on 17 Dhu'l-Qa'da 801/21 July 1399 by the scribe Mahmud Sha'ban, who was living in the fort of Galyur (modern Gwalior).⁷⁸ Each of the regular folios in the 550-folio manuscript has thirteen lines of text, with an interlinear Persian translation in a smaller and rounder *naskh*. The top, middle, and bottom lines are written in gold outlined in black; the intermediate lines alternate in red and blue, with the Persian translation written in the opposite color. In addition, there are thirty-four illuminated double pages, thirty marking the division of the text into sections, three others at the beginning of the manuscript, and one at the end. The illuminated pages have headings in *thuluth* or broken cursive script sandwiching five lines of text, the top, middle, and bottom in a thick gold and the intermediate two in red and blue.⁷⁹ The riot of color and vegetal decoration virtually overpower the somewhat awkward text script. It is an early version of *bihari*, notable for its irregular strokes and varied rhythms. *Alif* is pitched slightly to the left, and many final letters have long horizontal flourishes that balance the comparatively short verticals. The words sit on a flat baseline, and the intervals between words are emphasized by the contour panels around the words. The most



notable letters are the large *dal*, which is almost as tall as *alif*, and final *ya*, which has a sharp angle, both features found in earlier sultanate documents and manuscripts.

Bihari script came to the fore in the fifteenth and early sixteenth centuries. It can be seen in several Koran manuscripts, including one dated 888/1483 in the Bijapur Archeological Museum (Figure 9.8),⁸⁰ as well as many fine examples which are undated but usually attributed to the late fifteenth century.⁸¹ These manuscripts vary in size: the Bijapur manuscript and an undated one in the Khalili Collection (QUR 602) are very large (approximately 50 × 31 cm), but undated copies in the British Museum and the Khalili Collection (QUR 237) are medium-size (30 × 20 cm). They are all copied on crude paper that has been eaten away by the acidic green pigments used for illumination. Each regular page has from eleven to fifteen lines of *bihari* script, sometimes with an interlinear Persian translation or a commentary written in the margins. Like the Gwalior manuscript, these ones often have multiple illuminated pages, not only at the beginning and end of the text but also in the middle. The manuscript in Bijapur, for example, has three lines of large script sandwiching ten lines of

Figure 9.8 Double page with Sura 19:1–15 marking the beginning of juz' 16 from a single-volume Koran manuscript with thirteen lines per page transcribed in 888/1483.

This Koran manuscript is copied in the distinctive *bihari* script that came to the fore in the Indian subcontinent in the fourteenth and fifteenth centuries. It is marked by an *alif* pitched to the left and wedge-shaped terminals that are left open at the end. There are several manuscripts in this distinctive style, which may have developed at Jawnpur, a flourishing cultural center in this period.

smaller script, an arrangement popular in Iran at least since the twelfth century (Figure 6.13). In Indian manuscripts in *bihari* script, however, all the lines are written in the same style and differ merely in size and color, whereas manuscripts from Iran juxtapose different styles as well as different sizes of script.

The pitched *bihari* script used in these fifteenth-century Indian manuscripts is notable for the strong wide horizontals of its wedge-shaped curves that open at the left. Written in black ink, these curves dominate the page and jump out from the red pausal markings and gold rosettes separating the verses. The word *allah* is often written in a different color, either gold or red. The basmala is stylized, with the initial *ba*' heightened so that it is as tall as *alif* or *lam*. The words cluster on the line, and the tail of *mim* is usually short, but in at least one manuscript with an interlinear Persian translation, it descends in a sweeping curve like that used in the group of Koran manuscripts attributed to Anatolia (Figure 9.2) or possibly Central Asia.⁸² In *bihari* script, the short vowels *fatha* and *kasra* are typically marked with a horizontal stroke, rather than the one set at 45° used in other styles. These markings add to the feeling of hesitancy and flatness.

Although none of these Koran manuscripts in *bihari* script includes a site of production in the colophon, Jeremiah Losty suggested that they may be associated with Jawnpur by comparison with an anthology of Persian verse compiled c. 1400 for Sultan al-Sharq Mubarakshah of Jawnpur.⁸³ Under the patronage of the Sharqi sultans (r. 1394–1483), the city became a flourishing cultural center: known as the Shiraz of Hind, it was home to a particularly fine school of Indo-Muslim architecture.⁸⁴ Both script and illumination in the anthology recall those of the Koran manuscripts in *bihari*. Though transcribed in *naskh*, the calligraphy used in the anthology has the same generous spacing between words found in *bihari* script and many of the same letter forms, such as large *dal*, sweeping tail to 'ayn, and *kaf* with a hooked bar. An illuminated verbal puzzle shares the loose *thuluth* script used for headings in the Bijapur Koran manuscript. The stylized words in the whirling puzzle also have the same combination of thick and thin strokes with wedge-shaped terminals characteristic of *bihari*.

Koran manuscripts in *bihari* script had a wide currency and were exported from India to south Arabia. Three leaves from a large (55 × 33 cm) copy, for example, were recently discovered in the ruins of a mosque or madrasa at Dawran in the northern Yemen.⁸⁵ They were part of a group of fragmentary Koran manuscripts found on the ground after an earthquake had devastated the town. Like the rumpled and torn pages from Koran manuscripts uncovered in the roof of the mosque at San'a (see Chapter 4), this hoard may have secreted for safekeeping. Layout and script in the three leaves from this manuscript, probably the oldest in the group, show it to be a fifteenth-century Indian copy: each page has seventeen lines of *bihari*

script, the first, middle, and last lines sandwiching lines of smaller script of the same style. It is not surprising that Indian manuscripts were imported to the Yemen, for trade links between the two areas were strong and artistic forms and motifs transferred in other media. The 'Amiriyya Madrasa, erected in Rada' under the Tahirids in Rabi' I 910/August-September 1504, for example, shares many formal and decorative elements – ranging from architectural elements like small pavilions (*chattris*) and horseshoe arches to floral designs – with buildings in India.⁸⁶ Many of these elements were introduced through trade in luxury objects, especially textiles, and the talents of traveling craftsmen. Koran manuscripts were included in this Indian Ocean trade, and the distinctive style of *bihari* script, in turn, affected the development of Koranic calligraphy in the Yemen.

Along with the Koran manuscript in *bihari* script, the hoard at Dawran contained leaves from thirty-three other Koran manuscripts, which range in size, style, and date. Most, if not all, seem to be local copies of Indian work, often done on watermarked paper in various hands notable for their strong horizontality and thick, wedged-shaped terminals. Other Koran manuscripts may well have been made in the region, but many libraries there remain uncatalogued, and few such manuscripts are published.⁸⁷ One of the few that is (Figure 9.9) comprises the fourth volume of a ten-part Koran.⁸⁸ It contains thirty-eight folios of medium-size (26 × 20 cm) coarse paper. Each page has eleven lines of thick round script. The occasional word or syllable is squeezed in vertically at the end of the line (as here on lines one and seven), the sign of an inexperienced calligrapher who did not know how to space out his text. The most remarkable feature of the script is the elongated and broad terminals that often encircle the following word. As a result, the baseline changes from one word to the next, creating a jarring effect for the reader. *Dal* is large (Figure 9.9a). *Alif* has a sizeable terminal on the right and tapers downward (Figure 9.9b). *Kaf* is serpentine (Figure 9.9c) and sometimes broken-backed. The beginning of the new chapter is marked by a plain braided band set against a red ground and the chapter heading, which has plain characters outlined in black set against a blue ground. The name of the chapter (Yusuf) and the number of verses (111) are written in *thuluth* with flat diacriticals, a feature typical of *bihari* script. To draw attention to the chapter heading, the scribe added a marginal decoration of a six-pointed rosette set against a blue ground.⁸⁹

A note recording the death of a woman in Dhu'l Qa'da 953/December 1546–January 1547 added on folio 37b provides a *terminus ad quem* for this Yemeni Koran manuscript, and it can be attributed to the second half of the fifteenth century on the basis of its similarities to a group of Hebrew manuscripts copied at San'a in the 1460s and 1470s.⁹⁰ All these manuscripts are executed in primary colors without gold. Both materials and scripts are mediocre, and both are related to contemporary developments in India.



Figure 9.9a



Figure 9.9b

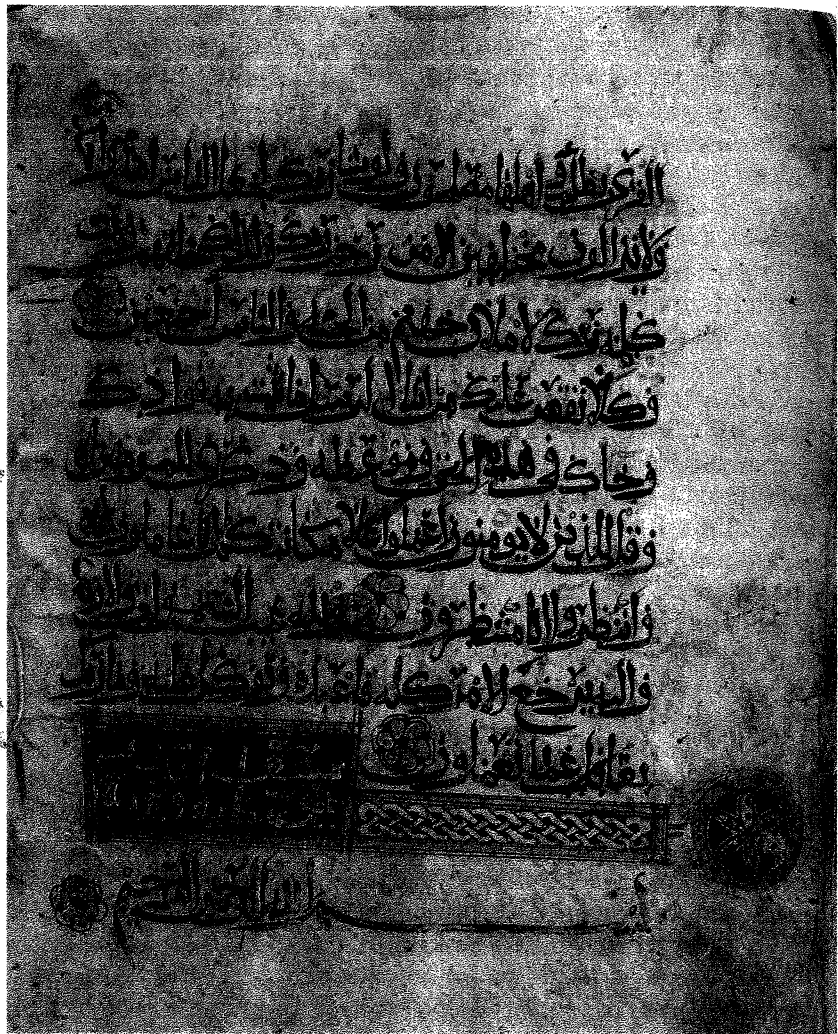


Figure 9.9c

Figure 9.9 Page with Suras 11:117–12:1 from volume four of a ten-part Koran manuscript with eleven lines per page.

Based on similarities to the group of Hebrew manuscripts made at San'a in the 1460s and 1470s, this the Koran manuscript can be attributed to the Yemen in the second half of the fifteenth century.

Similarities include the primary colors of the illumination and the elongated bowls of the letters. Such an attribution makes this manuscript one of the few published copies of the Koran attributable to the Yemen during this period.



Despite the use of *bihari* for transcribing Koran manuscripts, *naskh* remained the main script for fine copies of other texts made in India, as elsewhere. It was used, for example, in several manuscripts copied at Mandu c. 1500. The most famous (Figure 9.10) is a copy of the *Ni'matnama*, a cookbook with recipes for delicacies, aphrodisiacs, and other epicurean delights begun for the Khalji sultan of Malwa, Ghiyath Shah (r. 1469–1500), and expanded for his son, Nasir Shah (r. 1500–10).⁹¹ Each page is transcribed in ten lines of large black *naskh*, with red for pausal markings. Like the *naskh* used for the Koran transcribed some two centuries earlier in Afghanistan,⁹² the script in the cookbook is marked by a *kaf* with an unusually elongated body and final *ya'* (and *nun*) with long, angled tails that curve forward to encompass the following word (Figure 9.10a). The tail of *jim* is a large open bowl that swoops in the opposite direction, and

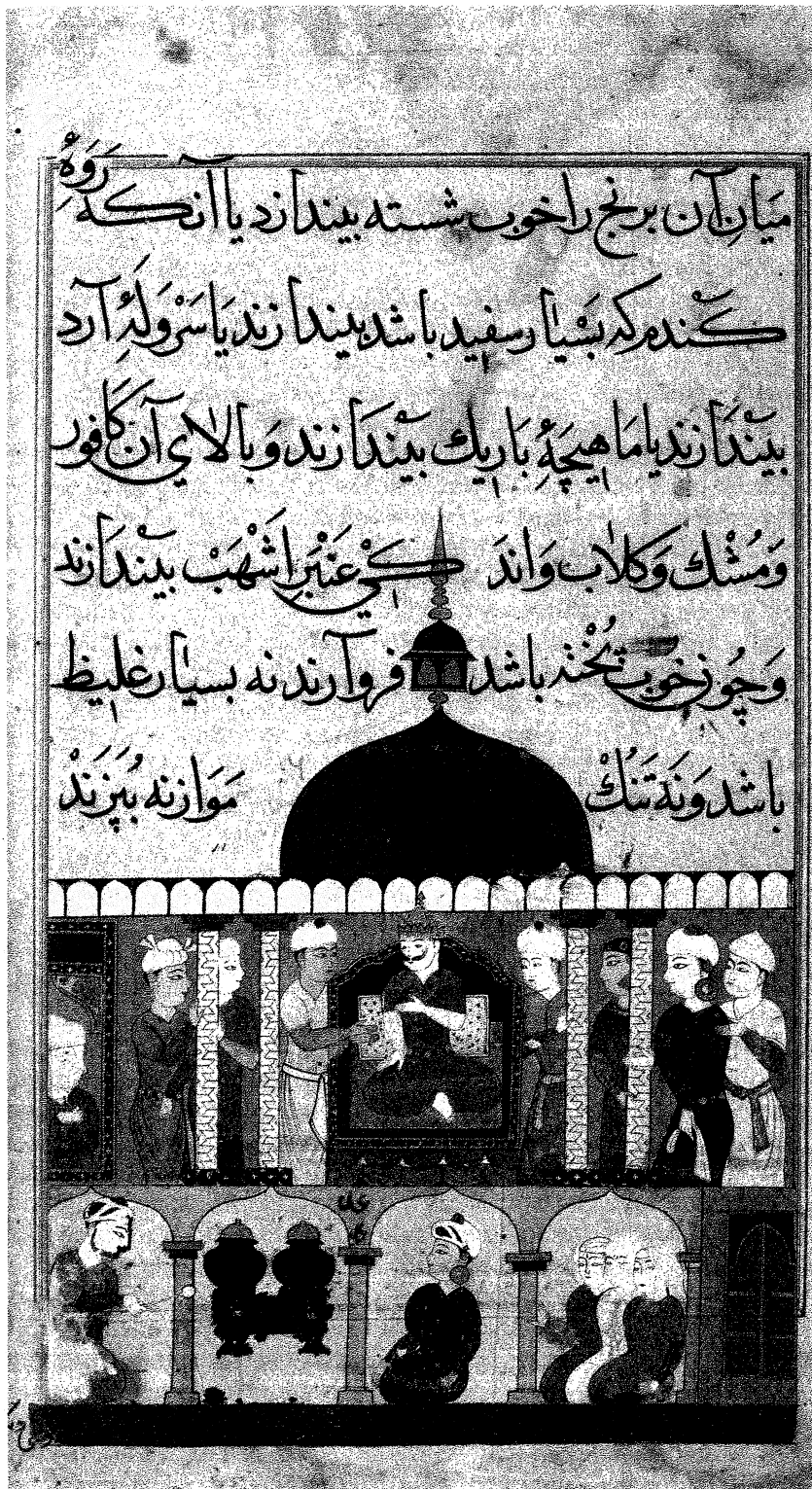


Figure 9.10 Page showing a prince enthroned from a copy of the *Ni'matnama*, a cookbook with recipes of delicacies, aphrodisiacs, and other epicurean delights transcribed at Mandu, c. 1500.

To transcribe his cookbook, the scribe used a clear and readable *naskh* with an elongated *kaf* and long open curves. *Alif* is marked by a hook, often smudged, to the left.

کنیز اشهب

Figure 9.10a



Figure 9.10b

the up-and-downstrokes of letters like *dal*, *lam*, and *kaf* are often separated. *Alif* is pitched slightly to the left, as in *bihari*. It is sometimes connected to the previous letter and marked with a right hook that sometimes smudges (Figure 9.10b). The combination of *fatha* with *sukun* is marked with a single stroke that resembles an reversed and flat comma, as in *bi-andazand* (Figure 9.10b). This script is related to the distinctive style used in Shiraz at the beginning of the fifteenth century (Figure 7.10), and both it and the related style of painting were probably brought to India as part of the trade that flourished between Fars and India, where they took on characteristics of the local styles.

For manuscripts of Persian poetry, the stylized *naskh* used in the subcontinent was sometimes replaced by the hanging *nasta'liq* popular in Iran since the fourteenth century. The finest example from the school of Mandu is a manuscript of Sa'di's *Bustan* copied c. 1500 for Nasir Shah by Shahsavar *al-katib* (the scribe).⁹³ To judge from the script and paper, the same scribe may have copied a manuscript of *Miftah al-fuzala*.⁹⁴ The text, a glossary of rare words occurring in ancient Persian poems, was composed in 873/1468–9 by Muhammad ibn Da'ud ibn Muhammad ibn Mahmud Shadiyabadi, a native of Mandu, capital of Malwa under the Khalji dynasty, and this copy seems to be contemporary with composition. The script used in these two manuscripts foreshadows the elegant hanging *nasta'liq* that became the standard for copying fine literary texts under the Mughals (see Chapter 12).

The Maghrib

As in India, a distinct style of calligraphy developed in this period at the opposite end of the Islamic lands in the Maghrib. In many ways the script used there in this period resembles that of earlier times (see Chapter 6). Calligraphers continued to use the same distinctive style of ductus (e.g., strokes of uniform thickness and looped descenders), individual letters (e.g., *alif* with a spur on the bottom left and smooth *sad*), vocalization (e.g., *qaf* marked by one dot above and *fa'* by one dot below), and punctuation (e.g., an orange/yellow dot for *hamzat al-qat'* and a green dot for *hamzat al-wasl*). Calligraphers again wrote in both the small style of script, sometimes called *andalusi* and used for Koran manuscripts with fifteen to twenty-nine lines per page, and the larger looser style sometimes called *fasi* and used for manuscripts with less than ten lines per page.

A well-known copy of the Koran completed at the end of Jumada II 703/early February 1304 shows how earlier traditions continued.⁹⁵ Virtually all of its features – from materials to calligraphy – are the same as those in the Koran codex copied at Valencia a century earlier (Figure 6.16). For example, the later manuscript is copied on parchment, which remained in use in the Maghrib far later than it did in the east. It also shares the standard size (17 × 17 cm) and square shape

with manuscripts made earlier in the region.⁹⁶ The later manuscript also has the same type of lavish gold illumination used a century earlier in Valencia. A set of double-page illuminated pages frames the beginning and end of the text. *Sura* titles and markers are written in gold, with a circle in the margin to indicate the division in sixtieths (*hizb*) and the place for prostration (*sajda*) and an ogival medallion to mark the division into thirtieths (*juzʿ*). Within the text, a pyramid of three gold balls marks the end of a verse, a gold tear-shaped *haʿ* marks a group of five verses, and a large gold circle marks a group of ten verses. In the later manuscript, however, the gold markers do not always accord with the actual number of verses. Rather, they seem to have been sprinkled on the page as much for visual effect as for actual counting.⁹⁷ If anything, the scripts used in this manuscript are even more mannered than those used a century earlier, and the total effect of the page more static.⁹⁸

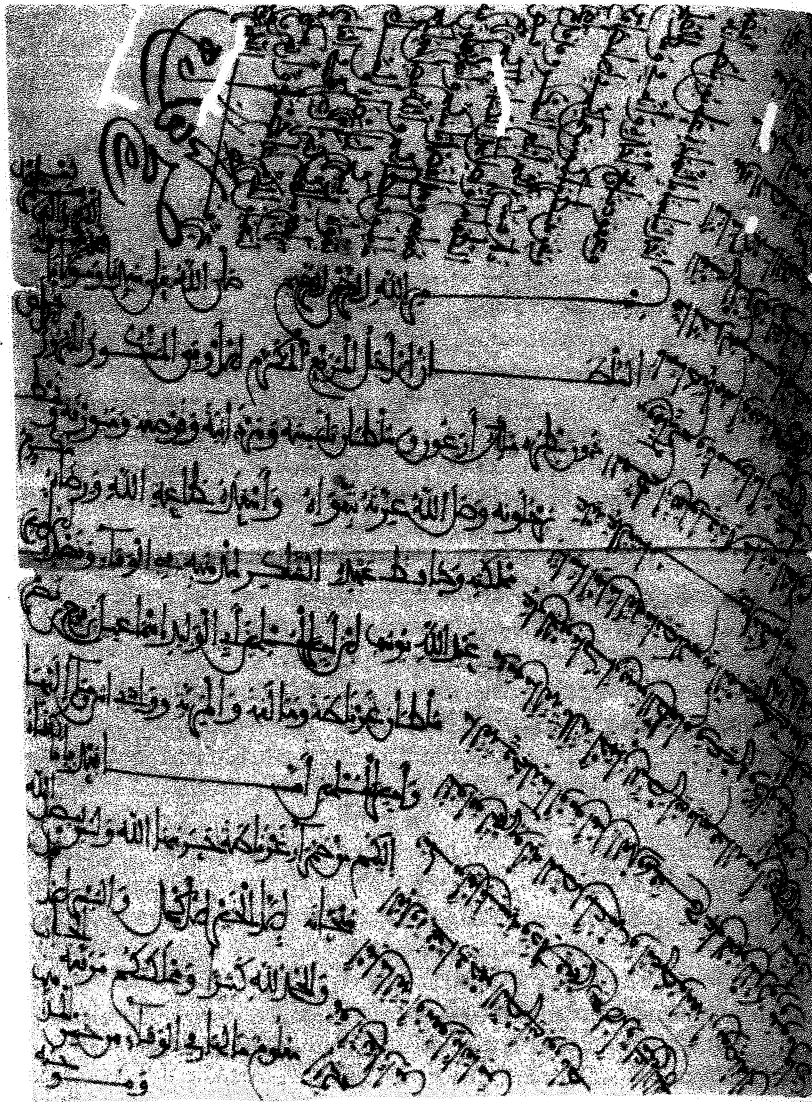
Despite the continued use of parchment, paper – which had been used earlier in the Maghrib for illustrated manuscripts – gradually became standard for Koran manuscripts. The paper was often colored, as in a twenty-volume Koran manuscript in the Ben Yusuf Madrasa in Marrakesh, attributed on stylistic grounds to the thirteenth century.⁹⁹ The large text (there are only five lines per page) is transcribed on good-quality peach-colored paper known as *al-shabti*, as it came from the town of Játiva (in Arabic, al-Shatiba). Located southwest of Valencia, the city was already famous for its paper in the mid-twelfth century. The Sicilian Muslim geographer al-Idrisi, for example, praised Játiva for its magnificent paper, said to be of a quality found nowhere else and exported to both East and West.¹⁰⁰

Colored paper was used in the Maghrib not only for manuscripts but also for documents. We know this from an extraordinary group of 162 letters written between 1296 and 1418 by Muslim rulers of Spain and North Africa to the kings of Aragon-Catalonia.¹⁰¹ Preserved in four containers in the archive of the Crown of Aragon (now in Barcelona), these letters mainly deal with political problems or wars. Most are written on sheets of local paper, distinguished by a row of zig-zags visible near the right margin when the paper is held up to the light.¹⁰² Some sheets are white, but many are colored, ranging from red or vermillion to purple or pale pink. These colored papers are sometimes known by the generic term of *nasri*, as they were first produced during the period when the Nasrids ruled Granada (1232–1492).¹⁰³

This letter (Figure 9.11) is typical.¹⁰⁴ Written by Yusuf I, Nasrid ruler of Granada, to Peter IV (the Ceremonious) of Aragon, it is dated 10 Shaʿban 745/17 September 1344 and demands the return of a certain amount of wheat which had been stolen from Yusuf's subjects by Valencian thieves. Peter was apparently not in any rush to solve the problem, as this is Yusuf's second letter on the subject. A few weeks later on 2 October, the two rulers signed a peace treaty, but we do not know what happened to the stolen wheat. Like many contemporary letters in this archive, this one is written on a sheet of

Figure 9.11 Letter dated 10 Sha'ban 745/17 September 1344 from the Nasrid ruler Yusuf I of Granada to Peter IV, King of Aragon.

This letter, like many written by the Nasrids to the kings of Aragon-Catalonia that are preserved in the archive of Crown of Aragon, is written on paper dyed pink. The text, in the distinctive *maghribi* script, demands the return of stolen wheat. To maximize the use of paper, the text is written counter-clockwise around the sheet.



paper measuring some 36 by 26 cm that has been dyed rose-colored. The red color was clearly significant. The most striking letter in the group, written not in Arabic but in Castilian, was sent on 4 September 1418 by the Nasrid ruler Muhammad VIII to Alfonso V.¹⁰⁵ It is dyed blood-red, almost purple.

The format of Yusuf's letter is also typical. It begins in thirteen lines written horizontally across the page.¹⁰⁶ The right margin slopes inward, but the left is flush with the edge of the paper. As in other documents issued by chanceries in the Islamic lands (Figures 6.7, 7.13, 8.11, and 9.7), the lines slope slightly upwards, and the last words in each line are piled up to prevent additions. In order to accommodate the long text on a single sheet of paper, the text

continues upside down around the right side of the page and across the top.

The scribe used extenders between letters (*mashq*) to call attention to important parts of the text. The basmala at the beginning is marked by a large-toothed *ba'* at the beginning of the word, which is juxtaposed to the long curving tail of *mim* (Figure 9.11a). The phrase is extended by a long connector between the *sin* and *mim* of *bism*, curiously the asymmetrical place typical of Koran manuscripts made in the east, but different from the central one used in the Maghrib, in which the connector between *ha'* and *mim* of *al-rahman* is extended (Figure 6.16). The rest of the opening line in the letter contains a prayer to the Prophet Muhammad. Yusuf's titles occupy the next seven lines. The opening word *sultan* has a long extender (Figure 9.11b), parallel to that of the basmala in the line above. Similarly, in line eight a long extender in the word *ama* in the phrase *ama ba'd* (literally, and so) marks the beginning of the text proper and visually distinguished titles from text. The letter ends in the upper-left corner with the date and the phrase *sahha hadha* (this is correct), added with a different pen in a larger script. Such validation would be recognizable even to someone who did not read Arabic and was also included at the end of letters written in Castilian.



Figure 9.11a



Figure 9.11b

Yusuf I's letter is written in the distinctive *maghribi* script. Many letters have looped, descending tails. *Alif* has a barb to the left and, in its final form, a point below the baseline. *Mim* has a long swooping tail whose shape varies depending on context. *Ta'za'* has a diagonal upstroke (Figure 9.11b), and *sad* a flat body. *Fa'* is pointed with one dot below the letter and *qaf* with one dot above. The text is clear and easily readable. Legibility was important, for many kings of Aragon had trouble reading these letters: when Peter IV received seven letters in Arabic at Perpignan, his staff had to send them all the way to Barcelona for translation.

The Nasrids continued to rule a besieged Granada until the very end of the fifteenth century, but few signed and dated manuscripts made there in later years have been preserved, perhaps because the Christian conquerors purposefully destroyed the Nasrid royal library.¹⁰⁷ We are better informed about works produced then by the Nasrids' contemporaries, the Hafsids, rulers of what is now Tunisia and eastern Algeria from 1229 to 1574. Their manuscripts show that by this date paper had become standard for Koran manuscripts in the Maghrib, as elsewhere, and that the small version of *maghribi* script was often replaced by its larger and more spacious counterpart.

The most famous Koran manuscript made for the Hafsids is a small (24 × 16 cm) codex transcribed on paper that is dyed in shades ranging from brown to purple (Figure 9.12).¹⁰⁸ The opening volume bears two notices that the Hafsid sultan Abu Faris 'Abd al-'Aziz al-Mutawakkil ibn Ahmad II (r. 1394–1434) endowed the manuscript to the Mosque of the Qasba in Tunis in Ramadan 807/March 1405.¹⁰⁹ The extraordinary purplish brown color of this paper is matched by its special

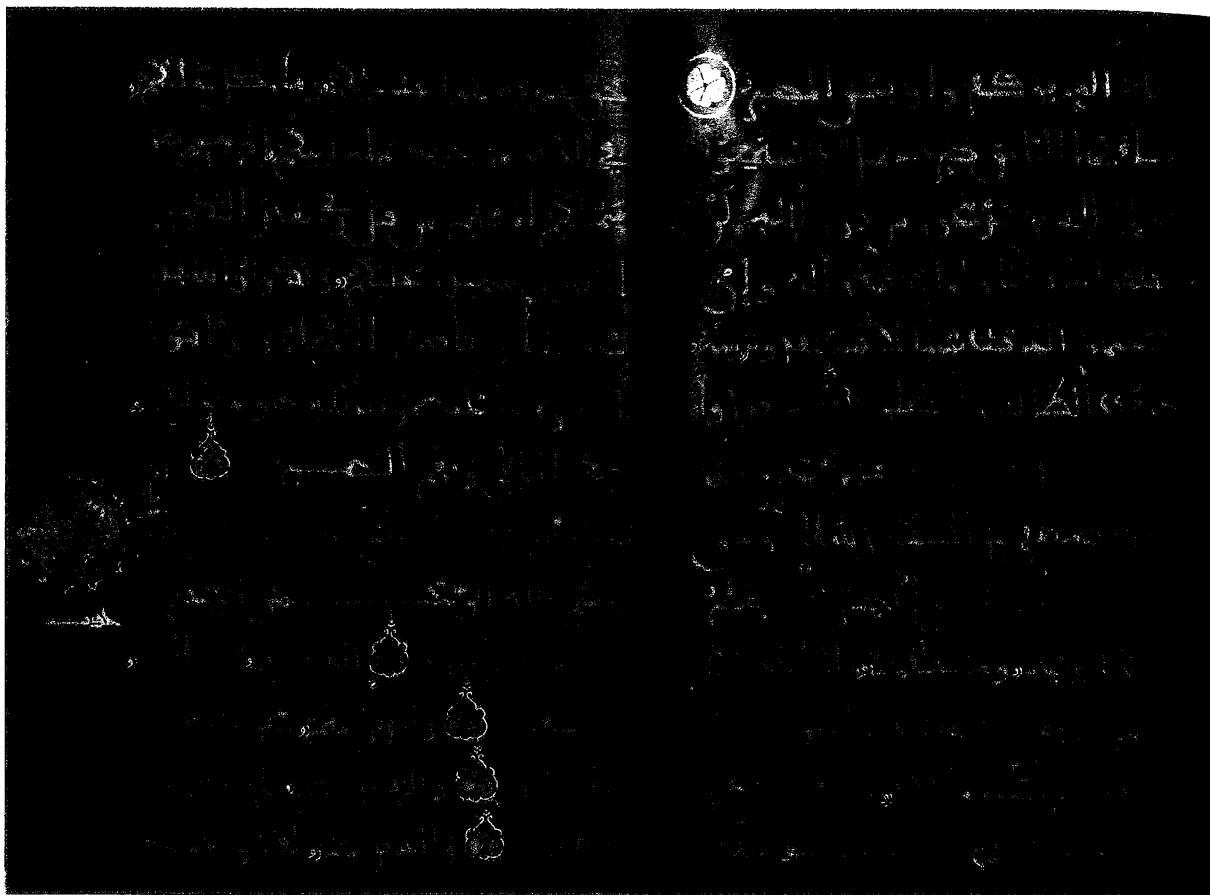


Figure 9.12 Double page with Suras 22:72–23:5 from a five-volume Koran manuscript with thirteen lines per page endowed by the Hafsīd sultan Abu Faris ‘Abd al-‘Aziz al-Mutawakkil ibn Ahmad II to the Mosque of the Qasba in Tunis in Ramadan 807/March 1405.

The endowment notice provides a *terminus ad quem* for this manuscript, whose unusual paper dyed brown and silver ink indicate its royal quality. It seems to have been a presentation copy and shows almost no signs of wear. It is written in a slowing-moving *maghribi* script.

وَالَّذِينَ هُمْ

Figure 9.12a

الحج

Figure 9.12b

silver ink, used on each page for thirteen lines of text and vocalization. Often, though not always, the change from parchment to paper was accompanied in the Maghrib, as it had been in the eastern Islamic lands (see Chapter 5), by a change from brown to black ink.¹¹⁰ For de luxe manuscripts from this period, calligraphers used different colors of ink not only to transcribe the text, but also to outline the letters. Another Koran manuscript in Paris, for example, has gold letters outlined in black for the text and *sura* headings in blue outlined in gold.¹¹¹

In the five-volume Hafsīd Koran manuscript, colored markers are used to indicate variant readings. A note on the opening folios of the first volume explains the various signs used to mark the seven

variant readings and alternative divisions into verses. Pyramids of gold balls decorated with blue and red dots and outlined in white mark the end of individual verses; a similar gold tear-drop marks the end of five verses, and a rosette within a circle marks the end of ten verses. The verse markers are sometimes added in the margin as the calligrapher, when transcribing the text, apparently forgot to leave sufficient space between the verses.

The gold rubrics in the Hafsid manuscript are unusual, for they are not headers, but footers that record information about the preceding *sura*. They open with the phrase *jumlatu surati allati yudhkaru fiha* ([here] finishes the *sura* in which was mentioned . . .), followed by the key word used as the title of the preceding *sura*. Thus, the gold line in the middle of the left page here mentions *al-hajj* (the pilgrimage), the name of the preceding *sura* (22). The five lines below the footer contain the opening verses of the following *sura* (23, Believers), beginning with the basmala. These gold footers were clearly inserted into the already written text. In some cases, as on the page illustrated here, the last words of the line are fitted in vertically at the end of the line. In other cases, the last words of the footer are squeezed into the line below with the basmala opening the next *sura*.¹¹²

As with the Koran manuscripts copied in Andalusia in preceding centuries, the Hafsid copy shows a great concern for balance and symmetry that often outweighs readability. Again, the basmala just below the middle of the left-hand page is elongated between the *ha'* and *mim* of *al-rahman* so that it fills the line. The long horizontal stroke provided a convenient seat for any extra words from the preceding footer. Despite the attention paid to variants and precision, the verse markings do not correspond with the numbers given in the footers. Thus, the footer at the end of Surat al-Hajj (22) on the left page states that the chapter contains seventy-seven verses, though the verse markers reach only seventy-six and both the Standard Egyptian and Flügel editions of the text give seventy-eight. This divergence in numbering occurs elsewhere in the manuscript as well.¹¹³

Like the decoration, the script in the Hafsid Koran manuscript shows a deliberate pacing and balance. The tails of final *mim* are curved in a semicircle to face the tail of *ra'* or final *nun* in the preceding word or syllable. This is particularly clear in the opening verses of Sura 23 at the bottom of the left page (Figure 9.12a), in which four verses open with the same word ([*wa*] *alladhinahim*). Similarly, the letters in the footer naming the preceding *sura*, *al-hajj*, have been piled up in a zig-zag formation, with the initial *lam* curved to match the final tail of *jim* (Figure 9.12b). The word looks like a piece of ribbon candy. The curved letters of the script are countered by the flat baseline ruled with a *mastara*. Letters not only sit on this line, they also connect on it without benefit of the supra- or sublinear bump used in other round hands.

Stylistic or historical evidence allows us to attribute other undated Koran manuscripts to North Africa in the late fifteenth century. One

وَيُوتُونَ الزَّكَاةَ وَهُمْ
 بِالْآخِرَةِ هُمْ يُوقِنُونَ
 إِنَّ الَّذِينَ لَا يُؤْمِنُونَ بِالْآخِرَةِ
 رَبِّهِمْ هُمُ الَّذِينَ هُمْ
 يُخْسِرُونَ أُولَئِكَ
 الَّذِينَ يَزُولُ عَنْهُمُ الْعَذَابُ
 وَهُمْ فِي آخِرَةِ
 هُمْ الْأَخْسَرُونَ

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ
 كَسْرَتِلْخَ آيَتِ
 الْفَرْزَانِ وَكِتَابِ مَبِينِ
 هُدًى وَبُشْرَى الْمُؤْمِنِينَ
 الَّذِينَ يَفْعَلُونَ الصَّلَاةَ

Figure 9.13 Double page with Sura 27:1–5 from an eight-volume Koran manuscript with eight lines per page.

A note in one volume saying that it was acquired by Emperor Charles V during his expedition to Tunis and Algiers in 1535 provides a *terminus ad quem* allowing us to attribute this splendid manuscript to North Africa in the late fifteenth century. It shows an extremely stylized version of *maghribi* script, with long curving tails and flourishes.

example is another fine manuscript in Paris (Figure 9.13).¹¹⁴ The eight volumes of quinions are transcribed on paper watermarked with a crescent surmounted by a cross.¹¹⁵ Chanceries in the Maghrib had used European paper at least since the mid-fourteenth century, and by the fifteenth century Italian papers had entirely replaced local production in such cities as Tlemcen and Fez.¹¹⁶ The Christian symbols must have enraged some Muslim users, but according to a *fatwa*, or legal decision, issued by Ibn Marzuq in Tlemcen on 9 Rabi' II 812/21 August 1409 and later recorded by the noted jurisconsult al-Wansharisi, writing in Arabic over the idolatrous designs rendered them invisible. God's word (and message) written on such paper, argued al-Wansharisi, replaced falsehood with truth.¹¹⁷

For this eight-part Koran manuscript, the anonymous calligrapher first ruled the large page with a *mastara* and then transcribed eight lines in black ink. He added vocalization in red, marking *hamza* with a yellow dot and *wasla* with a green one. *Shadda* and *sukun* are in blue. The script is similar to but more stylized than that used in the purplish brown manuscript endowed by the Hafsid sultan at the beginning of the century (Figure 9.12). The use of a *mastara*

encouraged a flat baseline to the letters, emphasized here by the flat bottom of *sad* and the elongated bodies of *ta'* (Figure 9.13a) and *kaf*. In most cases, however, the calligrapher exaggerated the curvilinear elements. Curves are deeper and more stylized than in the earlier manuscript, with the large bowl of final *nun* (Figure 9.13b) and related letters sometimes tapering to a point. The tail of *ra'* returns upward with a hook that reaches the baseline (Figure 9.13c), evident in the basmala. Independent *ha'* or *ta' marbuta* takes two forms. In some cases, the calligrapher penned a circle in a clockwise direction, ending with the tail spinning off to the upper right, as in *al-salat* in the bottom line of the right page (Figure 9.13d) and *al-zakat* in the first line of the left page. In other cases he moved in the opposite direction, penning a counterclockwise circle and extending the tail with a backwards flourish, as in the word *al-akhira* in the middle of line two and the end of lines three and seven (Figure 9.13e) on the left page. *Lam-alif* looks like a pair of dancers (Figure 9.13f). This is a mature stylized hand that bespeaks a long tradition. It was used for a fine manuscript whose pages were decorated with large gold headings in which the kufic display text is squeezed in the center of an unusual strapwork panel. The folios were then gathered in quinions, and the sections bound in fine gold-stamped Moroccan leather.

Copies of the Koran were often the fanciest manuscripts produced, with lavish use of gold and many folios (the large eight-part Hafsīd manuscript had close to 1,000 folios) due to the large script and wide spacing. Calligraphers used the same script, nevertheless, for other fine manuscripts, such as a two-volume copy of Aristotle's politics translated under the name *al-Siyasa fi tadbir al-riyasa* or *Sir al-asrar* transcribed in 894/1488–9.¹¹⁸ Each small page (25 × 21 cm) has seventeen lines of fine *maghribi* script in brown ink, with diacriticals and vocalization added in the same ink. Titles and headings are written in larger letters, and diagrams are painted in gold. The script is very similar to that used in the eight-volume Koran, with large curving tails, *ra'* with returning hook, and counter-clockwise final *ha'*. It shows the same contrast between flat baseline and large curves. These traits will continue to mark the calligraphy used in North Africa in succeeding centuries as the region became increasingly isolated from developments elsewhere and the script remained remarkably static (see Chapter 12).



Figure 9.13a



Figure 9.13b



Figure 9.13c



Figure 9.13d



Figure 9.13e



Figure 9.13f

Notes

1. CBL 1466; Arthur J. Arberry, *The Koran Illuminated: A Handlist of Korans in the Chester Beatty Library* (Dublin, 1967), no. 46; David James, *Qur'ans and Bindings from the Chester Beatty Library: A Facsimile Exhibition* (n.p., 1980), no. 69; M. Uğur Derman, *The Art of Calligraphy in the Islamic Heritage*, trans. Mohamed Zakariya and Mohamed Asfour (Istanbul, 1998), no. 22. It is a tiny (11 × 8 cm) 341-folio manuscript transcribed in *naskh* by 'al-Hasan ibn Chuban ibn

- ‘Abdallah al-Qunyavi at the Madrasa of Sa‘d al-Din Kubak in Konya at the end of Rabi‘ II 677/September 1278. David James reports (*The Master Scribes: Qur‘ans of the 10th to the 14th Centuries AD*, ed. Julian Raby, The Nasser D. Khalili Collection of Islamic Art [London, 1992], 194) that there are other Anatolian Koran manuscripts in the Mevlana Museum in Konya, but they are not yet published. In the thirteenth century Saljuq patrons had established many madrasas in the region, and such manuscripts would have met the demand for copies of the Koran and other religious texts needed by students in these institutions.
2. In addition to Arabic, the language of religion, and Persian, the language of literature, Turkish was the vernacular language in the area. Most people spoke Western Turkish, the dialect spoken by the Turkomans, rather than Chaghatay, or Eastern Turkish, a type of Western Uighur spoken mainly in Central Asia but also written by the khans of the Golden Horde and the Crimea and the Kazan Tartars. See *The Encyclopedia of Islam, New Edition*, ed. H. A. R. Gibb and others (Leiden, 1960), ‘Chaghatay.’
 3. One prose work is a copy of al-Urmawi’s moral encyclopedia entitled *Lata‘if al-Hikmat* copied at Konya in 684/1286 by Abu’l-Mahamid Muhammad ibn Mahmud ibn Hajji nicknamed (*al-mulaqqab bi*) Hamid al-Mukhlissi al-Bukhari; BN, Or. Pers. 121; see Francis Richard, *Catalogue des manuscrits persans: I. Ancien fonds* (Paris, 1989), 138–9; Francis Richard, *Splendeurs persanes: Manuscrits du XIIIe au XVIIe siècle* (Paris, 1997), no. 5. The manuscript was later owned by the Ilkhanid vizier Rashid al-Din.
 4. Florence, National Library, Ms. Cl. III 24; A. M. Piemontese, ‘Nuova luce sua Firdausi: uno Šāhnāma datato 614H./1217 à Firenze,’ *Istituto Orientale di Napoli Annali* 40 (1980): 1–38; 189–242; Francesco Gabrieli and Umberto Scerrato, *Gli Arabi in Italia: Cultura, Contatti e Tradizioni*, (Milan, 1989 [1979]), pl. 729. The manuscript is attributable to Konya in part because of the Turkish glosses on the Persian verse.
 5. Konya, Mevlana Museum, no. 51; Zeren Tanındı, ‘1278 Tarihli en Eski Mesnevi’nin Tezhipleri,’ *Kültür ve Sanat* 2, no. 8 (1990): 17–22; James, *Master Scribes*, 194; Julian Raby and Zeren Tanındı, *Turkish Bookbinding of the 15th Century: The Foundations of an Ottoman Court Style*, ed. T. Stanley (London, 1993), 3–4; Richard Ettinghausen, Oleg Grabar, and Marilyn Jenkins-Madina, *Islamic Art and Architecture, 650–1250* (New Haven and London, 2001), 258 and pl. 429. The date of the manuscript is sometimes confused. James, *Master Scribes*, 194 and n. 1, reported that the date 677 was a mistake for 667/1268–9, a date repeated in Ettinghausen, Grabar, and Jenkins-Madina, *IAA, 650–1250*, 258. As Zeren Tanındı has kindly informed me, the colophon page is published in Abdülbâki Gölpınarlı’s edition of the *Mathnavi, Mesnevî tercemesi ve Şerhi* (Istanbul, 1981), and the reproduction shows that the date clearly reads 677. This date is accepted by all Rumi scholars (see Franklin D. Lewis, *Rumi: Past and Present, East and West: The Life, Teaching and Poetry of Jalâl al-Din Rumi* [Oxford, 2000], 307–9).
 6. TKS H841; A. S. Melikian-Chirvani, ‘Le Roman de Varqe et Golšâh,’ *Arts Asiatiques* 22 (1970); Filiz Çağman and Zeren Tanındı, *The Topkapı Saray Museum: The Albums and Illustrated Manuscripts*, ed., expand. and trans. J. M. Rogers (Boston, 1986), nos. 21–4. The manuscript can be attributed to Konya because the painter, ‘Abd al-Mu‘min al-Khuwayi (from Khoy), also witnessed the endowment deed to the

- madrasa founded at Konya by the Saljuq amir Jalal al-Din Karatay in 651/1252–3; see M. K. Özergin, 'Selçuklu Sanatçisi Nakkaş, Abdülmü'min el-Hoyi Hakkında,' *Belleten* 34 (1970): 219–30.
7. Geneva, Bodmer Collection, cod. 527; Leila Benouniche, *Le Kalila et Dimna de Genève*, Université de Genève, no. 329 (Geneva, 1995). Its colophon states that Muhammad ibn Muhammad ibn 'Umar nicknamed (*al-mulaqqab bi*) al-Jalal and known as (*al-ma'ruf bi*) Ibn al-Kamal the calligrapher (*al-khattat*) finished transcription on Friday 15 Safar 661/29 December 1262. A note in red added to the left of the colophon states that the scribe finished reading and correcting the text on Sunday 19 Jumada II 661/29 April 1263, some four months after he had finished transcription. The illustrations, however, were not added until much later – c. 1560, to judge from stylistic evidence.
 8. Rumi is the best-selling poet in America today. There is a vast and ever growing literature on him and his work. For a short biography, see *EI*/2, 'Djalāl al-Din Rūmī.' A classic study of him and his work is Annemarie Schimmel, *The Triumphal Sun: A Study of the Work of Jalāloddin Rumi* (London, 1978). Carl W. Ernst, *The Shambhala Guide to Sufism* (Boston and London, 1997), 166–78, gives a good overview of his impact today. For the latest and (one of the most readable) studies, see Lewis, *Rumi*. For his order, see also the brief entry in J. Spencer Trimingham, *The Sufi Orders in Islam* (Oxford, 1971), 60–2.
 9. The order is home to the whirling dervishes.
 10. The vizier (d. 1277) was a prolific patron of architecture, commissioning the wooden Sahib Ata/Larende Mosque (1258) and the Ince Minareli Madrasa (c. 1260) in Konya, the Gök Madrasa (1271) in Sivas, and the Sahibiye Madrasa (1267–8) in Kayseri.
 11. Lewis, *Rumi*, esp. 307–10, has shown that textual authenticity was already a source of concern in early manuscripts of Rumi's work, for much of it was performed orally as part of the Sufi practice of *sama'*, auditions or spiritual concerts that involved the use of poems and music to focus the listener's concentration on God.
 12. Though the first to survive, this copy of Rumi's *Mathnavi* was probably not the first manuscript copied on such large sheets, for it is unlikely that such paper was produced in Konya. As Jonathan Bloom suggested to me, the Ilkhanid capital of Tabriz was the likely site where the paper was made, and it must have been exported from there. Such large sheets were probably used for other manuscripts and documents that have not survived because they were not preserved in a shrine context.
 13. The Rumi manuscript has twenty-nine lines per page in a written area 35 cm high, yielding an average of about 1.2 cm per line; the Yaqut Koran has thirteen lines in a written area 23.5 cm high, or about 1.8 cm per line.
 14. In the pocket-size Koran, the first four and the last eight pages are illuminated; two are illustrated in black and white in James, *Qur'ans and Bindings*, 89. One such carpet page from the Rumi manuscript is illustrated in color in Ettinghausen, Grabar, and Jenkins-Madina, *IAA*, 650–1250, fig. 429.
 15. To my knowledge, no works by Yaqut bear a mark of commissioning. See above, Chapter 7, note 23.
 16. The Mawlawi order continued to patronize de luxe books for centuries. The illustrated manuscripts they produced in Ottoman Baghdad are discussed in Rachel Milstein, *Miniature Painting in Ottoman Baghdad* (Costa Mesa, CA, 1990).

17. One of the oldest surviving examples of Sultan Valad's work is a manuscript of the *Intihanama* transcribed by 'Uthman ibn 'Abdallah, the freedman of Sultan Valad ('*atiq al-valad*) in Sha'ban 714/November–December 1314 (BN, supp. pers. 1794; Richard, *Splendeurs*, no. 17). The same calligrapher also copied a manuscript of Rumi's *Mathnavi* in 723/1323, which is preserved in the shrine museum at Konya. A group of manuscripts notable for their large size and fine illumination is preserved in the Mevlana Museum in Konya (see Zeren Tanındı, 'Seçkin Bir Mevlivî'nin Tezhipli Kitapları,' in M. Uğur Derman 65 *Yaş Armağanı*, ed. Irvin Cemil Schick [Istanbul, 2000], 513–36). The National Library in Vienna (Cod. mixt. 1594; Dorothea Duda, *Islamische Handschriften I Persische Handschriften*, in *Die Illuminierten Handschriften und Inkunabeln der Österreichischen Nationalbibliothek*, Österr. Akademie der Wissenschaften, Phil.-Hist. Klasse, Denkschriften, 167 [Vienna, 1983], 219–21) also owns a copy of Sultan Valad's *Rababnama* and *Intihanama*. According to the colophon, Hasan ibn 'Uthman al-Mawlawi completed the manuscript at the end of Jumada II 767/mid-March 1366. The frontispiece bears a dedication to the minister Abu'l-Ma'ali Amir Sati al-Mawlawi ibn Husam al-Din Hasan on 10 Dhu'l-Hijja 767/18 August 1366, who can be identified as the ruler of Erzincan (d. 1386). The same scribe and patron are named on a fine manuscript of Rumi's *Divan* (Konya, Mevlana Museum no. 69), whose original binding is signed on the back doublure by the binder Abu Bakr, identified as a Mawlawi Sufi from Hama (*al-mawlawi al-hamawi*). The scribe of these two manuscripts, Hasan ibn 'Uthman, may have been the son of the 'Uthman ibn 'Abdallah who had transcribed manuscripts for the Mawlawi order in the 1310s and 1320s. Many of the features remain the same. These manuscripts, for example, are written in a regular, legible *naskh* script, in this case with thirty-three lines on each large page, a script similar to the one used in the first clean copy of Rumi's *Mathnavi*. Many details of the illumination in this copy of Sultan Valad's work are also part of the standard repertory used at Konya since the thirteenth century, including multiple pages with quatrefoils or four-pointed stars, gold knotted borders, and delicate blue rulings with finials and rosettes or dots. The illuminator of this manuscript is not named, but he was a contemporary of Ibrahim al-Amidi, the artist who illuminated Koran manuscripts made for the Mamluk sultan al-Ashraf Sha'ban between 1369 and 1376 (Figure 8.2).
18. New York Public Library, Spencer, Arab no. 3; Barbara Schmitz, *Islamic Manuscripts in the New York Public Library* (New York and Oxford, 1992), no. V.8; Sheila S. Blair and Jonathan M. Bloom, *The Art and Architecture of Islam, 1250–1800*, The Pelican History of Art (London and New Haven, 1994), fig. 187. The scribe's name and epithet shows that he belonged to the Mawlawi order, which was concentrated in Anatolia and had only a few outposts elsewhere. In addition to stylistic evidence, the attribution to Anatolia is strengthened by a later owner's marks in Turkish saying that the volume belonged to a member of a Turkish brotherhood.

Each regular page (35 × 26 cm) has five lines of large *muhaqqaq*, with vowelings added in thinner strokes that are about half as wide. Chapter headings are written in white *thuluth* against a gold ground. Small eight-petaled rosettes in gold dotted with red and blue float above the text and mark divisions into verses, and larger medallions and rosettes protrude in the margin to mark divisions into five and ten verses. The opening lines of the section are surrounded by contour panels set

against a red crosshatched ground with four exuberant vine scrolls with large palmettes and sinuous arabesque leaves.

The format of thirty volumes with five lines of *muhaqqaq* per page fits the standard established in the imperial Koran manuscripts of Iraq and Iran (David James, *Qur'āns of the Mamlūks* [London, 1988], nos. 39, 42, 44, and 45), but the Anatolian manuscript is half the size and the script is more compact, requiring only forty folios per *juz'* (the imperial manuscripts typically have just over fifty folios). The Anatolian manuscript is the same size but less compact than another one dated Sha'ban 710/January 1311 and attributed by James to Tabriz (TKS K503; James, *Qur'āns of the Mamluks*, no. 44). The text script of large *muhaqqaq* and display script of white *thuluth* also match the types used in Koran manuscripts from Iran. They can be compared, for example, to the scripts used in the Koran made at Rashid al-Din's pious foundation in Hamadan (DK 72; James, *Qur'āns of the Mamluks*, no. 45, esp. figs. 80–1). Similarly, the division of the rubrics into a large central compartment flanked by squares decorated with floral motifs is also part of the Ilkhanid tradition known from manuscripts made for Rashid al-Din. See, for example, the copy of his *Compendium of Chronicles* dated 714/1314–15 divided between the Khalili Collection and Edinburgh University Library (David Talbot Rice, *The Illustrations to the 'World History' of Rashīd al-Dīn*, ed. Basil Gray [Edinburgh, 1976]; Sheila S. Blair, *A Compendium of Chronicles: Rashid al-Din's Illustrated History of the World* [London, 1995]). The red-hatched ground with arabesque scrolls and the ruling with a thin blue lines with corner finials, however, relate to the type used in Koran manuscripts copied by Ahmad al-Mutatabbib in Cairo in the 1320s (Figure 8.1).

19. Paris, BN, Supp. Pers. 1610; Richard, *Splendeurs*, no. 2. The last of the Atabeg line were local rulers of Azerbaijan and eastern Transcaucasia who championed Islam against the resurgent Bagratid Georgian kings. See EI/2, 'Ildeñizids or Eldigüzids,' *Encyclopedia Iranica*, ed. Ehsan Yarshater (London and New York, 1985), 'Atābakān-e ādarbāyjān.' The Persian translation of al-Tabari's commentary, *Tarjama-yi tafsir-i tabari*, made in the second half of the tenth century, is the oldest and most renowned Persian work on the Koran.
20. The first dated 737/1337 is in the Astan-i Quds in Mashhad (ms. no. 293; Ahmad Gulchīn-i Ma'ānī, *Rāhnamā-yi ganjīna-yi qur'ān* [Mashhad, 1347], no. 48; James, *Qur'āns of the Mamluks*, no. 58). The second dated 764/1363 is in the Sülemaniye Library in Istanbul (Hekimoğlu Ali Paşa Camii no. 2; mentioned in János Eckmann, *Middle Turkic Glosses of the Rylands Interlinear Koran Translation* [Budapest, 1976], 17–18, no. 4, but not published).
21. James, *Qur'āns of the Mamluks*, no. 59. Parts from fifteen sections of the manuscript (4–6, 9–10, 13–4, 16, 20, 22–6 and 28) have been rebound in fourteen volumes in the John Rylands Library (ms. 760–73). A few single frontispieces to the individual sections have been detached (the opening to *juz'* 4 is LACMA 73.5490; the opening pages to sections 6 and 20 are CBL 1606 and 1630). A fifth Koran manuscript in this group is a dispersed manuscript with a Persian interlinear translation and distinctive borders with strapwork and kufic inscriptions containing hadith added to pages in *juz'* six (James, *Qur'āns of the Mamluks*, no. 60; James, *Master Scribes*, nos. 51–2). Two other manuscripts in the Khalili Collection (QUR87 and QUR283; James, *Master Scribes*, nos. 5 and 50) can be related by script, though they do not have an interlinear translation. A single-volume manuscript with Turkic interlineary

translation (TIEM T73; James, *Qur'ans of the Mamluks*, no. 54) transcribed and gilded by Muhammad ibn al-Hajj Dawlatshah al-Shirazi has a more typical *muhaqqaq* script. James gives the date wrongly as 733/1332–3; the correct date is 734/1333–4. Abdülkadir Inan, *Kur'an-i Kerim'in Türkçe Tercemeleri Üzerinde Bir İnceleme* (Ankara, 1961) published a facsimile of some 31 pages from it. According to Eckmann ('Eastern Turkic Translations of the Koran,' in *Studia Turcica*, ed. L. Ligeti [Budapest, 1971], 149–59; *Middle Turkic Glosses*, 13–14), the translation in this manuscript transcribed in Shiraz is the oldest extant and can be dated to the twelfth to thirteenth centuries on the basis of the archaic language used. Eckmann also mentions a further incomplete manuscript with a Persian and Turkish translation in the library of the Uzbek Academy of Sciences in Tashkent that A. A. Semenov assigned to the thirteenth century (ms. 2008; A. A. Semenov, *Sobranie Vostochnykh Rukopisei Akademii Nauk Uzbekskoi SSR* [Tashkent, 1957], IV, no. 2854).

22. The dispersed copy, as well as one in the Khalili Collection (QUR87) without interlinear translation, also has three lines to the page in thirty volumes. The other in the Khalili Collection (QUR283) without interlinear translation is also thirty volumes, but has five lines to the page. The manuscript in the BN is a seven-part manuscript with five lines to the page; the volume in Mashhad is the last of a four-part manuscript with seven lines to the page.
23. The one made for the Atabeg vizier in the 1220s (40 × 33 cm) is very close in size to one in the Khalili Collection without interlinear translation (39 × 32 cm). The one in Mashhad is smaller (36 × 25 cm) as is the other in the Khalili Collection without interlinear translation (QUR283).
24. As in the Mashhad codex (James, *Master Scribes*, fig. 124) and the Paris codex (*Splendeur et majesté: Corans de la Bibliothèque Nationale* [Paris, 1987], 65).
25. As in the dispersed copy; James, *Qur'ans of the Mamluks*, 244, no. 60.
26. This detail is taken from the dispersed manuscript with borders in *juz*' 6; James, *Qur'ans of the Mamluks*, fig. 119.
27. See above, note 18.
28. For the strapwork, see particularly the copy of Rumi's *Mathnavi* transcribed in 677/1278.
29. János Eckmann, 'Two Fragments of a Koran Manuscript with Interlinear Persian and Turkish Translations,' *Central Asian Journal* 13 (1969): 287–90; Eckmann, *Middle Turkic Glosses*, 16–17.
30. Eckmann, *Middle Turkic Glosses*, 16, compared innovations introduced by the copyist such as rounded endings to those attested in the Khwarazmian glosses of a manuscript of the *Muqaddimat al-adab* (Istanbul, Süleymaniye Library, Yozgat no. 396) dated 655/1257.
31. *Elx*, 'Chaghatay.'
32. James compared the decoration in the Rylands Koran manuscript to that in an unpublished Koran manuscript copied by Isma'il ibn Yusuf and illuminated by Ya'qub ibn Ghazi al-Qunyavi at Konya in 714/1314–15 for the Qaramanid prince Khalil ibn Mahmud ibn Qaraman (Konya; Mevlana Museum, Kona ms. 12, cited in James, *Qur'ans of the Mamluks*, 176 and n. 34). Along with the lords of Erzinçan, the Qaramanids became the most important patrons of art in the fourteenth century. On the Qaramanids in general, see *El*2, 'Karāmān-oghullari,' on their patronage of art, see Raby and Tanındı, *Turkish Bookbinding*, 4–6.

33. A contemporary painting probably detached from a copy of Rashid al-Din's *Compendium of Chronicles* and now mounted in an album in Berlin (Diez A, fol. 70, S. 8; M. Ipşiroğlu, *Saray-Alben: Diez'sche Klebebände aus den Berliner Sammlungen* [Wiesbaden, 1964], no. 30, pl. 8 upper) shows two scholars seated on a carpet inside a huge tent reading books propped up on such stands.
34. No. 384; illustrated in James, *Qur'ans of the Mamluks*, fig. 125; Rudolf M. Riefstahl, 'A Seljuq Koran Stand with Lacquer-Painted Decoration in the Museum of Konya,' *Art Bulletin* 15, no. 4 (December 1933): 361-73; Ettinghausen, Grabar, and Jenkins-Madina, *IAA*, 650-1250, no. 423. Another contemporary stand made by Hasan ibn Sulayman al-Isfahani dated Dhu'l-Hijja 761/October-November 1360 for an unidentified madrasa has more rectangular rests (NY, Met., 10.218; Blair and Bloom, *The Art and Architecture of Islam, 1250-1800*, fig. 28; Linda Komaroff and Stefano Carboni [eds], *The Legacy of Genghis Khan: Courtly Art and Culture in Western Asia, 1256-1353* [New Haven, 2002], no. 176).
35. The single-volume Koran manuscript in Mashhad is signed by Muhammad ibn Shaykh Yusuf al-Abari known among the followers (*ashab*) as the sayyid of calligraphers (*sayyid al-khattat*). In the Chaghatay section of the colophon, he is called Yigneji-oghlu (the son of the needle-seller or needle-maker), which James suggested may be interpreted as someone who worked with a needle. That this manuscript was made in a provincial center is clear from the awkward Arabic of the colophon, in which the calligrapher is called *sayyid al-khattat* rather than the more usual *sayyid al-khattatin*.
36. On the role of Sufis in central Asia, see Devin A. DeWeese, *Islamization and Native Religion in the Golden Horde: Baba Tükles and Conversion to Islam in Historical and Epic Tradition* (University Park, PA, 1994). The shrine over the grave of the Sufi shaykh Ahmad Yasavi (d. 1166) in an oasis north of Tashkent became a major focus of pilgrimage for the Turks of central Asia and the Volga at this time and was substantially rebuilt by Timur using the booty he had gained from defeating the Golden Horde; see Blair and Bloom, *The Art and Architecture of Islam, 1250-1800*, 37-9, with references.
37. Manijeh Bayani, Anna Contadini, and Tim Stanley, *The Decorated Word: Qur'ans of the 17th to 19th Centuries*, The Nasser D. Khalili Collection of Islamic Art (London, 1999), no. 1. The city was renamed Beijing in 1421 when it became the northern capital of the Ming; the great mosque is the present Niu Jie Si (Mosque on Ox Street), although it received this name only in 1427.
38. London, Khalili Collection, QUR960; Bayani, Contadini, and Stanley, *The Decorated Word*, no. 2. Madinat Yunnan is probably a translation of the Chinese name Yunnanfu, applied to the city of Kunming as capital of the province of Yunnan.
39. Even his name is unusual: it is clearly vocalized in the colophon (illustrated in Bayani, Contadini, and Stanley, *The Decorated Word*, 258) as Rashād (literally, reason), an unusual variant of the more usual Rashīd (literally, rightly-guided).
40. For example, Bayani, Contadini, and Stanley, *The Decorated Word*, 16, note that on fols. 42b-43a, *wa-'annaka* is written as *wa lam naku* and on fol. 50b *'alayhim* is written as *'aliyahum*.
41. Bayani, Contadini, and Stanley, *The Decorated Word*, 13 and 10, respectively. This phrase is common on buildings in North Africa and may relate to the conservative leanings of the patrons, who typically

- belonged to the Maliki school of law; Sheila S. Blair, *Islamic Inscriptions* (Edinburgh, 1998), 29. The use of this phrase here remains to be explained.
42. A *juz*' attributed to eighteenth-century China and now in the Chester Beatty Library (ms. 1602; Arberry, *Koran Illuminated*, no. 243 and pl. 70), for example, shares the same format, script, and illumination.
 43. For some of the many fine buildings constructed in Bursa in the fourteenth and early fifteenth centuries, see Blair and Bloom, *The Art and Architecture of Islam, 1250-1800*, 134-45. At least one building there shows the close connection between central Asia and Anatolia in this period. The decorator (*naqqash*) 'Ali ibn Ilyas was taken from Bursa to Transoxania, but later returned to his home town, where he was in charge of decorating the so-called Yeşil Cami; or Green Mosque, part of the magnificent tomb complex erected by the Ottoman sultan Mehmed (Muhammad) the Conqueror in the 1420s; see, with references to earlier works, Raby and Tanındı, *Turkish Bookbinding*, 22-5.
 44. One of the major patrons there was the statesman and military commander 'Umar Bey (d. 1461-2). His father Timurtash Pasha (d. 1404-5) had amassed a fortune as governor of Kutahya and *beylerbey* of Anatolia. 'Umar himself served under several Ottoman sultans in Bursa and helped channel their interests toward the arts and sciences. He seems to have been the first to make an inventory of his library and to organize manuscript production during the Ottoman period. See Zeren Tanındı, '15th-Century Ottoman Manuscripts and Bindings in Bursa Libraries,' *Islamic Art* 4 (1990-1): 143-74. One of the manuscripts 'Umar endowed to his madrasa in Bursa was a Koranic commentary copied by Musa ibn Haji Husayn ibn 'Isa al-Izniqi in 838/1434-5; Bursa, Inebey Library, ms. Ulu Cami 435; Raby and Tanındı, *Turkish Bookbinding*, no. 3.
 45. Bursa, TIEM, ms. 207; Tanındı, '15th-Century Ottoman Manuscripts and Bindings in Bursa Libraries,' 148; Raby and Tanındı, *Turkish Bookbinding*, no. 1.
 46. The musical treatise is TKS, R1726; Raby and Tanındı, *Turkish Bookbinding*, no. 2. It has a magnificent binding but is transcribed in what is described as a poor *nasta'liq*.
 47. Several of these in Mashhad (e.g., Astan-i Quds no. 414) and Shiraz (Pars Museum 430) are illustrated in color in Martin Lings, *The Quranic Art of Calligraphy and Illumination* (London, 1976), 81-5 and 89; Martin Lings and Yasin Safadi, *The Qur'ān* (London, 1976), 115 and 119.
 48. Julian Raby, 'East and West in Mehmed the Conqueror's Library,' *Bulletin du Bibliophile* 3 (1987): 297-321. Raby amassed a list of more than ninety Islamic manuscripts with frontispiece dedications to Mehmed.
 49. The three Koran manuscripts comprise one written in Edirne and donated by Mahmud Pasha to the tomb of Rumi and now in the Mevlana Museum there; a second dedicated to Mehmed and now in a private collection in Italy; and a third in Istanbul (TIEM, no. T448). Ernst J. Grube, 'The Date of the Venice *Iskandar-Nama*,' *Islamic Art* 2 (1987): 187-202, used a copy of Badi' al-Din Minuchihr al-Tabrizi's *Dilsuznama* made at Edirne in 860/1455-6 (Oxford, Bodleian, Ouseley 133) to identify a group of three illustrated manuscripts produced at Mehmed's atelier there, including a well-known copy of Ahmadi's *Iskandarnama* (Venice, Marciana Library XC). An undated copy in Leningrad (C1330) may be attributed to the same school; see I. E. Petrosyan, 'An Illustrated Turkish Manuscript of "Iskender-Nāme" by

- Ahmedi,' *Manuscripta Orientalia* 1, no. 2 (October 1995): 47–8, 57–61, front and back covers. The paintings in these manuscripts are modeled on the Turkoman style used in early fifteenth-century Shiraz, and similarly the calligraphy copies the distinctive Shirazi style with long tails that sweep under the next word.
50. Raby and Tanındı, *Turkish Bookbinding*.
 51. For the international Timurid style and the role of Baba Naqqash and his album designs (Istanbul, F1423), see Blair and Bloom, *The Art and Architecture of Islam, 1250–1800*, 232, with references.
 52. Istanbul, TKS, E.H. 2878; *The Anatolian Civilisations III Seljuk/Ottoman* (Istanbul, 1983), E.10; Jay A. Levenson (ed.), *Circa 1492: Art in the Age of Exploration* (Washington, DC, 1991), no. 90.
 53. It is possible that this calligrapher was responsible only for some of the designs on the scroll, but since his is the only signature on it, I have assumed that he was the sole person involved.
 54. Istanbul, TKS, A.2177; Raby and Tanındı, *Turkish Bookbinding*, no. 13.
 55. Konya, Mevlana Museum, no. 143; Yanni Petsopoulos (ed.), *Tulips, Arabesques and Turbans: Decorative Arts from the Ottoman Empire* (New York, 1982), no. 172.
 56. On this script, see Habîballâh Faẓā'ilî, *Atlas-i khatt: taḥqîq dar khattût-i islāmî* (Tehran, 1391/1971), 160–72. Abdullah Ghouchani, *Angular kufic on Old Mosques of Isfahan* (Tehran, 1985) gives many examples from Isfahan.
 57. See Chapter 7 for details on these albums.
 58. The same thing happened after the Ottomans defeated the Safavids at Chaldiran in 1514.
 59. L. Fekete and G. Hazai, *Einführung in die Persische Paläographie, 101 Persische Dokumente* (Budapest, 1971), no. 4.
 60. *EI*/2, 'Faṭhnāme,' *Elr*, 'Faṭh-nāma.'
 61. One example is the account by the twelfth-century historian Ibn al-Jawzi of the *fathnama* that the Ghaznavid sultan Muhammad sent to the 'Abbasid caliph al-Qadir on 1 Jumada II 420/16 June 1029 after taking Rayy from the Buyids. After the famous battle at Dandanqan in 431/1040, the victorious Saljuqs are even said to have transcribed their *fathnamas* using the writing materials plundered from the chancery of the routed Ghaznavids.
 62. The texts of many Arabic, Persian and Turkish documents from the time of Mehmed the Conqueror have been gathered by Necâti Luğal and Adnan Erzi, *Mecmua-yi Münseat Mûteallik be Devre-Yi Sultan Mehmet Fatih* (Istanbul, 1956), though without illustration.
 63. Ali Alparslan (*EI*/2, 'Khatt iii') cites the example of the *fathnama* of Agriboz (TKS E10822). Francis Richard, 'Dīvānī ou ta'liq: un calligraphe au service de Mehmet II, Sayyidi Mohammad Monši,' in *Les Manuscrits du Moyen-Orient: essais de codicologie et paléographie*, ed. François Déroche (Istanbul/Paris, 1989), n. 23, gives others.
 64. Richard, 'Divani ou ta'liq.'; Raby and Tanındı, *Turkish Bookbinding*, 70–1.
 65. Sayyid Muhammad signed a collection of letters dated Rabi' I 881/July 1476 in the Keir Collection (Raby and Tanındı, *Turkish Bookbinding*, no. 22) as the son of Sadr al-Din *al-munshi* al-Muhsini and another manuscript in the Süleymaniye Library (ms. Ayasofya 3939) dated Muharram 886/March–April 1481 using the epithets *al-sultani al-shafi'i al-shirazi*. See Raby and Tanındı, *Turkish Bookbinding*, 70–1.
 66. Raby and Tanındı, *Turkish Bookbinding*, 70–1 and n. 116, citing E. Tansel's study of Ottoman sources during the time of Mehmed,

Osmanlı Kaynaklarına Göre Fatih Sultan Mehmed'in Siyasî ve Askerî Faaliyeti (Ankara, 1953), 323.

67. Raby and Tanındı, *Turkish Bookbinding*, 71 and n. 119, suggested that Sayyid Muhammad may have been responsible for what they consider one of the earliest examples of an Ottoman document written in *ta'liq*, one dated January 1474. They cited an article by Mohammad Mokri, 'Un *farmân* de Sultân Husayn Bâýqarâ recommandant la protection d'une ambassade ottomane en Khorâsân en 879/1474,' *Turcica* 5 (1973): 68–79, but this refers to a Timurid decree issued in Dhu'l-Qa'da 879/March–April 1474 in the name of Sultan Husayn Bayqara recommending the protection of an Ottoman embassy in Khurasan. Now preserved in Istanbul (TKS E.12305), it is a good example of Timurid *ta'liq*. Sayyid Muhammad may, however, have penned some of the unsigned documents issued by Mehmed's chancery; see above, note 65. The only one from Mehmed's reign reproduced in the admirable (and accessible) catalogue by Ayşegül Nadir, ed., *Osmanlı Padişah Fermanları/Imperial Ottoman Fermans* (Istanbul, 1986), no. 5, is a decree in Turkish granting property (*mulknama*) issued in mid-Safar 873/31 August–9 December 1468, written in a rather heavy *ta'liq* hand.
68. Richmond, Keir Collection; B. W. Robinson, et al., *Islamic Art in the Keir Collection*, The Keir Collection (London, 1988), no. PT1; Raby and Tanındı, *Turkish Bookbinding*, no. 22.
69. TIEM 2179.
70. TKS A3267; Richard, 'Divani ou ta'liq,' pl. XIB; Derman, *Art of Calligraphy*, no. 43.
71. A single-volume Koran manuscript dated 667/1268–9 (Khalili Collection QUR628; James, *Master Scribes*, no. 18) shows that calligraphers working in what is now eastern Iran and Afghanistan used the round scripts that had been popular elsewhere in earlier centuries. This copy was transcribed by Muhammad ibn Sulayman ibn Muhammad ibn Yunis *al-warraq* (the copyist) for Sharaf Sitti bint Amir Malik ibn Shir. James suggests that the patroness's grandfather could be identified with Asadallah Shir Malik Vajiri, an official who had served the Ghurid sultan Mu'izz al-Din Muhammad (r. 1173–1203). In Ghurid times women were often prominent patrons of religious art. The wife of the reigning Ghurid ruler Ghiyath al-Din Muhammad, for example, founded a large madrasa known as Shah-i Mashhad at a remote site on the west bank of the Murghab river in Badghis province in north-western Afghanistan in 571/1175–6; see Michael J Casimir and Bernt Glatzer, 'Şâh-i Mašhad, a Recently Discovered Madrasah of the Ghurid Period in Garğistân (Afghanistan),' *East and West* n. s. 21, no. 1–2 (March–June 1971): 53–68. Each page in this Koran manuscript has thirteen lines of large and rather angular *naskh*, with *thuluth* and broken cursive for headings and incidentals. The text script is notable for the elongated bowls and the wide body on *kaf* like that used in kufic script. Its provinciality is clear from its materials and pigments: they are not as fine as those used in contemporary manuscripts made in the metropolitan areas of Iran and Iraq. The gold and colors have faded and discolored, and the blue does not seem to be the deep ultramarine used further west.
72. B. W. Robinson, *Islamic Painting and the Arts of the Book*, Catalogue of the Keir Collection (London, 1976); Jeremiah P. Losty, *The Art of the Book in India* (London, 1982), no. 17. Cotton, a plant native to the region, was often used there until the Mughal period as a support for large paintings, as with the well-known example in the British

- Museum showing the princes of the house of Timur (see Sheila R. Canby, [ed.], *Humayun's Garden Party: Princes of the House of Timur and Early Mughal Painting* [Bombay, 1995]). In manuscripts like the *Hamzanama* (for which see John Seyller, 'The Adventures of Hamza,' in *The Adventures of Hamza: Painting and Storytelling in Mughal India* [Washington, DC, 2002]), large paintings on cotton were combined with text pages on paper.
73. Nabih A. Faris and George C. Miles, 'An Inscription of Bārbak Shah of Bengal,' *Ars Islamica* 7, no. 2 (1940): 141–7.
 74. BN, ms. pers. 36; 'Divani ou ta'liq,' n. 32. The manuscript is described and illustrated in Richard's admirably complete catalogue of the Persian manuscripts in the BN, Richard, *Catalogue*, 62 and pl. 7A.
 75. See Losty, *The Art of the Book in India*, 38–40.
 76. For a brief history of the region, see *EI*/2, 'Bihār;' *Elr*, 'Bihar.'
 77. *EI*/2, 'Khatt.'
 78. *The Arts of Islam*, exhibition catalogue, Hayward Gallery (London, 1976), no. 635; Anthony Welch, *Calligraphy in the Arts of the Muslim World* (Austin, TX, 1979), no. 75; Losty, *The Art of the Book in India*, no. 18. This was a time of major upheaval in the subcontinent. That year the great steppe conqueror Timur invaded India and sacked Delhi, but he withdrew in the spring of 1399. Gwalior, a major stronghold south of Agra, was not attacked, but shortly after Timur's departure, Tonwar Rajputs seized the citadel and returned the area briefly to Hindu suzerainty. Anthony Welch, *Calligraphy*, 178, suggests that the calligrapher might have fled from Delhi as Timur's army approached and taken refuge in the fort at Gwalior, where he finished his work in mid-summer 1399. In his entry on Koran manuscripts, François Déroche (*Encyclopedia of the Qu'rān*, gen. ed. Jane Dammen McAuliffe [Leiden, 2001], 3:265) also mentions a copy in Leiden University Library (Or. 18320) dated 811/1408–9.
 79. Curiously, the double pages marking the opening of juz' 11 (illustrated in color in Losty, *The Art of the Book in India*, pl. 8) do not have any Persian translation for the center lines in gold.
 80. The Bijapur manuscript (Archeological Museum, MS 912) has been published in Stuart Cary Welch, *India: Art and Culture, 1300–1900* (New York and Munich, 1993 [1988]), no. 71; Blair and Bloom, *The Art and Architecture of Islam, 1250–1800*, fig. 205. Losty, *The Art of the Book in India*, 39 also mentions a Koran manuscript in the Salar Jung Museum whose date has been obscured but which has been read as 926/1520. Its crude script and illumination suggest the end of the tradition.
 81. E.g., BL, Add. 5548–51 (Losty, *The Art of the Book in India*, no. 20) and Khalili Collection QUR602 and 237 (David James, *After Timur: Qur'ans of the 15th and 16th Centuries*, ed. Julian Raby, The Nasser D. Khalili Collection of Islamic Art [London, 1992], nos. 27–8).
 82. BL, Add. 5548–51; fol. 110b illustrated in Losty, *The Art of the Book in India*, 39.
 83. BL, ms. Or. 4110; Losty, *The Art of the Book in India*, no. 19.
 84. Blair and Bloom, *The Art and Architecture of Islam, 1250–1800*, 157–8 with references.
 85. Jan Just Witkam, 'Qur'ān Fragments from Ḍawrān (Yemen),' *Manuscripts of the Middle East* 4 (1989): fig. 8.
 86. Selma Al-Radi, *The 'Amiriya in Rada': The History and Restoration of a Sixteenth-Century Madrasa in the Yemen*, Oxford Studies in Islamic Art 13 (Oxford, 1997).

87. Witkam, 'Qur'an Fragments,' 157, for example, mentions one in Leiden University Library (Or. 20.530).
88. Khalili Collection, QUR525; James, *After Timur: Qur'ans of the 15th and 16th Centuries*, no. 11.
89. Based on Mamluk models, the Rasulids, rulers of the Tihama and the southern Yemeni highlands from 1228 to 1454, had adopted the five-petaled rosette as a dynastic emblem. On the rosette and its meaning, see Venetia Porter, 'The Art of the Rasulids,' in *Yemen: 3000 Years of Art and Civilisation in Arabia Felix*, ed. Werner Daum (Innsbruck and Frankfurt/Main, 1988), 232–54; Venetia Porter, 'Enamelled Glass Made for the Rasulid Sultans of the Yemen,' in *Gilded and Enamelled Glass from the Middle East: Origins, Innovations*, ed. Rachel Ward (London, 1998), 91–5. It then degenerated into one decorative element among many, and the six-petaled rosette appears on many works of art made for the Mamluks and those in their orbit.

The Rasulids were active patrons of literature and the arts, especially agriculture, mathematics and astronomy (David A. King, 'Astronomy in Medieval Yemen,' in *Yemen: 3000 Years of Art and Civilisation in Arabia Felix*, ed. Werner Daum [Innsbruck and Frankfurt/Main, 1988], 300–8; Daniel Martin Varisco, 'Medieval Agricultural Texts from Rasulid Yemen,' *Manuscripts of the Middle East* 4 [1989]: 150–4; Daniel Martin Varisco, *Medieval Agriculture and Islamic Science, the Almanac of a Yemeni Sultan* [Seattle, 1994]). The Rasulid sultan al-Ashraf (r. 1295–6) compiled an extensive treatise on the construction of astrolabes and sundials and even made his own astrolabe dated 690/1291 and now in the Metropolitan Museum of Art. Every year, the sultans had their astronomers prepare almanacs and ephemerides containing calendrical and astronomical information and tables of the positions of the sun, moon, and planets for each day of the year. Two of these almanacs survive, one prepared for San'a in 727/1326–7 (Cairo, DK, Miqat 817) and the other for Ta'izz in 808/1405–6. The earliest surviving examples of Islamic ephemerides, these manuscripts are copied in *naskh* with *thuluth* headings. This combination of scripts is typical of contemporary manuscripts made for the Mamluks (Figure 8.6), but the *naskh* used in the ephemeris made at San'a is remarkable for its long strokes on final *kaf*, *lam*, *nun*, and similar letters, in which the bowl is often extended so that it encircles the following letters.

90. Richard Ettinghausen, 'Yemenite Bible Manuscripts of the XVth Century,' *Eretz-Israel* 7 (1963): 32–9, published a group of five Hebrew manuscripts in the British Library that were transcribed by the same scribe or for the same patron. The texts include the Former and Latter Prophets and a hagiography, but the finest (Or. 2348) is a copy of the Pentateuch. According to the Arabic text on the last two pages of the manuscript, it was finished in Safar 874/August–September 1469 for Ibrahim ibn Yusuf ibn Sa'id [ibn] Ibrahim al-Isra'ili. The scribe's name is not given, but he is probably to be identified with Benayah ben Sa'ada ben Zacharia ben Marga, the Jewish scribe who signed two of the other manuscripts. The illuminated pages in this copy of the Pentateuch are clearly modeled on frontis- and finispieces in luxury manuscripts made for the Mamluks, but are not as fine. The gold and lapis lazuli pigments used by Mamluk calligraphers were not available to this calligrapher in San'a, who used simpler and cheaper pigments, mainly red, green, and blue. Similarly, his *thuluth* script is awkward, with unusually attenuated verticals and extra long bowls on final letters. The *ha'* in the name *ibrahim* in the top and bottom lines of the frontispiece is particularly

- strange. One line of text in the frontispiece to one of the other manuscripts (Or. 2211, fol. 1b) is even written upside down, suggesting that the calligrapher did not know Arabic.
91. London, India Office Library, ms. 149; Robert Skelton, 'The Ni'mat-Nama: A Landmark in Malwa Painting,' *Marg* 12 (1958): 44-50; Losty, *The Art of the Book in India*, no. 41; Blair and Bloom, *The Art and Architecture of Islam, 1250-1800*, fig. 207.
 92. See above, note 71.
 93. Delhi, National Museum, 48.6/4; Losty, *The Art of the Book in India*, no. 42.
 94. BL, Or. 3299; Losty, *The Art of the Book in India*, no. 40.
 95. Paris, BN, ms. arabe 385; Lings, *Quranic Art*, pls. 104-5; François Déroche, *Les Manuscrits du coran, du Maghrib à l'Insulinde*, Bibliothèque Nationale, Département des Manuscrits, Catalogue des Manuscrits Arabes (Paris, 1985), no. 296; Jerrilynn D. Dodds (ed.), *Al-Andalus: The Art of Islamic Spain* (New York, 1992), no. 85; Marie-Geneviève Guesdon and Annie Vernay-Nouri (eds), *L'Art du livre arabe: du manuscrit au livre d'artiste* (Paris, 2001), no. 62. Much the same can be said about another manuscript (BN, ms. arabe 395), the third part of a four-part copy of the Koran that was endowed to the Mosque at Malaga in 844/1440-1; to judge from materials (parchment) and style, it was probably made in the thirteenth or fourteenth century; see Déroche, *Manuscrits du coran II*, no. 298.
 96. Many manuscripts made in the Maghrib in this period are in the rectangular or landscape format, as distinct from the vertical or portrait format favored in the east.
 97. Sometimes there are too few markers, marking only three of the four verses before the marker for the fifth, as in the opening verses of Sura 72 (al-Jinn) at the top of the page and between the fifteenth and twentieth verses in the middle of the *sura*. Sometimes there are extra verse markers, as between verses 20 and 25, all found on the page illustrated in Lings, *Quranic Art*, 104. These extra markers might reflect the varying systems of numbering verses, for the verses at the end of Sura 72 are counted in different ways according to the Flügel and the Standard Egyptian systems. However, other pages in the manuscript (e.g., *Splendeur et majesté*, no. 10) are literally sprinkled with extra verse markers where none is required according either to the various standard systems or to the five and ten markers used in this particular manuscript.
 98. The kufic display script used in the *sura* titles, for example, is decidedly odd. The serifs point to the left, as in the *maghribi* text script. *Ra'* sometimes bends to the right so that it resembles final *'ayn*, as in the word *'ashr* (ten) in the verse counts. The calligrapher seems to have used this form of *ra'* when he wanted to make a symmetrical arrangement with the left-pointing hook of a preceding letter like final *nun*, *ta'*, or *waw*. The text script is equally distinct. The bodies of *kaf* and *sad* are stretched to add horizontal emphasis and counter the weight of the swooping tails, which often descend and touch the letters of the next line. Medial *ha'* resembles a *dal* with a loop at the end, as in *bihim*, the second word in the line above the *sura* heading at the bottom of the page.
 99. Bibliothèque Ben Youssouf, no. 431; Dodds, *Al-Andalus*, no. 81.
 100. Jonathan M. Bloom, *Paper before Print: The History and Impact of Paper in the Islamic World* (New Haven, 2001), 88, with reference to al-Idrisi, *Description de l'Afrique et de l'Espagne par Edrisi*, eds. R. Dozy and M. J. De Goeje, repr. 1866 (Leiden, 1968), 233.

101. They form the 'Cartas diplomáticas árabes' (CDA) and have been published with Spanish translations of their texts by Maximilano A. Alarcón y Santón and Ramón García de Linares, *Los Documentos árabes diplomáticos del archivo de la corona de Aragón* (Madrid, 1940).
102. These zig-zags are visible in the sheet illustrated in Bloom, *Paper before Print*, 86, and even more clearly in the larger illustration of the same sheet in Lucien X. Polastron, *Le Papier: 2000 ans d'histoire et de savoir-faire* (Paris, 1999), 111.
103. Oriol Valls i Subirà, *Paper and Watermarks in Catalonia*, Monumenta Chartae Papyracea Historiam Illustrantia (Amsterdam, 1970), 10-13; Oriol Valls i Subirà, *The History of Paper in Spain (X-XIV Centuries)* (Madrid, 1978), 2:214-26.
104. Alarcón y Santón and García de Linares, *Documentos Arabes*, no. 60.
105. CDA, case 4, folder 180; Valls i Subirà, *History of Paper*, fig. 67.
106. Other documents have eleven or twelve lines; see Valls i Subirà, *History of Paper*, figs. 63-4.
107. One of the rare examples of a dated Koran manuscript made in Andalusia in the fifteenth century is the one transcribed by Muhammad ibn 'Abdallah ibn Muhammad ibn 'Abdallah ibn 'Ali ibn Yahya al-Balansi (of Valencia) in 1469 (TKS R32; F. E. Karatay, *Topkapı Sarayı Müzesi Kütüphanesi. Arapça Yazmalar Kataloğu* [Istanbul, 1962], no. 323).
108. Paris, BN, mss. arabe 389-92; Déroche, *Manuscripts du coran II*, nos. 305-8; *Splendeur et*, no. 14; Blair and Bloom, *The Art and Architecture of Islam, 1250-1800*, fig. 147; Guesdon and Vernay-Nouri, *L'Art du livre arabe*, no. 25. Colored papers were popular in the Maghrib. Another three- or four-part Koran manuscript attributed to the fifteenth or sixteenth century in Rabat (Bibliothèque Générale D1304) is copied in silver ink with gold ornament.
109. This remarkable five-volume Koran manuscript had a long and impressive pedigree. Several volumes contain marks of ownership by one Muhammad al-Husayni. By 1632 the manuscript had passed to Europe and entered the collection of the French chancellor Pierre Séguier (1588-1672), Duc de Coislin, a man of great learning and a patron of literature whose library contained some four thousand manuscripts in various languages. After his death, the Séguier-Coislin library was donated to the Abbey of St-Germain des Prés in 1732, and thence to the Bibliothèque Nationale. One volume of the manuscript was also taken to the imperial library in St Petersburg.
110. While common, this change was not ubiquitous, however, for the 703/1304 Koran manuscript on parchment (BN, ms. arabe 385) is transcribed in black ink and the copy of the Koran on peach-colored paper (Rabat, Bibliothèque Ben Youssef, ms. 431) is transcribed in brown ink.
111. BN, Smith-Lesoëuf 217; Dodds, *Al-Andalus*, no. 84; Guesdon and Vernay-Nouri, *L'Art du livre arabe*, no. 61.
112. Déroche, *Manuscripts du coran II*, pl. IIb.
113. For example, volume five, fol. 25b contains the end of Sura 57 (al-Hadid), illustrated in Déroche, *Manuscripts du coran II*, pl. IIb. The footer states that the *sura* contains twenty-eight verses. The verse counters, however, reach only twenty-seven, and the Standard Egyptian and Flügel editions of the text have twenty-nine.
114. BN, ms. arabe 438-440; Déroche, *Manuscripts du coran II*, nos. 309-11; Guesdon and Vernay-Nouri, *L'Art du livre arabe*, no. 35. The manuscript

was apparently brought from North Africa in 1535, for one of the volumes bears a note in French saying that Charles V, Emperor of the Romans and King of Spain, acquired this copy of the Koran during his expedition to Tunis and Algiers and that Cardinal de Granvelle took it from the Escorial to put in his own library. It then passed to the library of the French chancellor Pierre Séguier, which also housed the purple Hafsid copy (Figure 9.12).

115. Eight-part Koran manuscripts seem to be a feature of the Maghrib. Another example in Paris (BN, MS. arabe 423; Déroche, *Manuscrits du coran II*, no. 297; *Splendeur et Majesté*, no. 12; *De l'Empire romain aux Villes impériales: 6000 ans d'art au Maroc* [Paris, 1990], no. 508) bears an endowment notice in the name of the Marinid sultan Abu'Inan Faris (r. 1348–58).
116. In 1350, for example, the sultan of Tunis, Musa ibn Abi Ya'qub, sent a letter from Tlemcen to Peter IV of Aragon-Catalonia on paper bearing a griffin watermark. Valls i Subirà, *Paper and Watermarks*, 11–12; Bloom, *Paper before Print*, 86.
117. The *fatwa* is described in Bloom, *Paper before Print*, 86–7, with a further reference to Vincent Lagardière, *Histoire et société en occident musulmane au moyen-âge: analyse du Mi'yar d'al-Wanšarisi*, Collection de la Casa de Velázquez (Madrid, 1995), 42. For its transmitter, see *EI*/2, 'al-Wansharīsī.'
118. Rabat, Bibliothèque, no. 586; *De l'Empire romain*, no. 513.

Part V: Dynastic Styles in the Age of Empires

The Safavids, the Qajars, and their Contemporaries in Iran and Central Asia

FROM C. 1500, ANY cultural and political unity that had existed within the so-called world of Islam was shattered, and the central Islamic lands were partitioned among three major empires: the Safavids, the Ottomans, and the Mughals.¹ During this period Islam spread as far as south-east Asia and sub-Saharan Africa, and Muslims there often looked to these new empires in the central zone as cultural models. The international Timurid style established at the end of the previous period had set the model for much of the art produced in the Islamic lands, and this section on calligraphy in the age of empires therefore begins, as did Hodgson's political history, with events that took place under the Safavids, rulers of Iran from 1501 to 1722, along with those of their contemporaries in Central Asia, the Shibanids (1500–99) and the Tuqay-Timurids (1599–1747), and their successors, the Qajars (1779–1925).

The Safavid age is often regarded as the time when the modern Iranian nation was founded, with Shi'ism imposed as the state religion. This change affected the choice of texts calligraphed, as new prayers and poems to 'Ali and the Shi'ite imams were added to the traditional repertory of Koran and hadith. This was also a period of prolific historiography – written, oral, and visual.² This was the moment when calligraphy was regularly collected and studied, its styles codified, and its history sketched, marking the first time that we can speak of an art history of Iranian calligraphy. As major patrons of the book, rulers and their courtiers not only maintained princely libraries and commissioned fine manuscripts, but also collected calligraphic specimens and had them mounted in magnificent albums that typically describe the history of calligraphy (and sometimes painting) in the preface and then illustrate it visually in the following pages.³ These treatises, along with the many signed and dated works that have survived, also make it feasible to sketch calligraphers' biographies in much greater detail than was possible for earlier periods. As a result, the history of calligraphy in the age of empires is traditionally given as prosopography, history sketched biographically. Here, however, this copious and multi-faceted material is organized by type of script, beginning with sections on the traditional styles of the Six Pens (*thuluth*, *naskh*, *muhaqqaq*, *rayhan*, *tawqi'*,

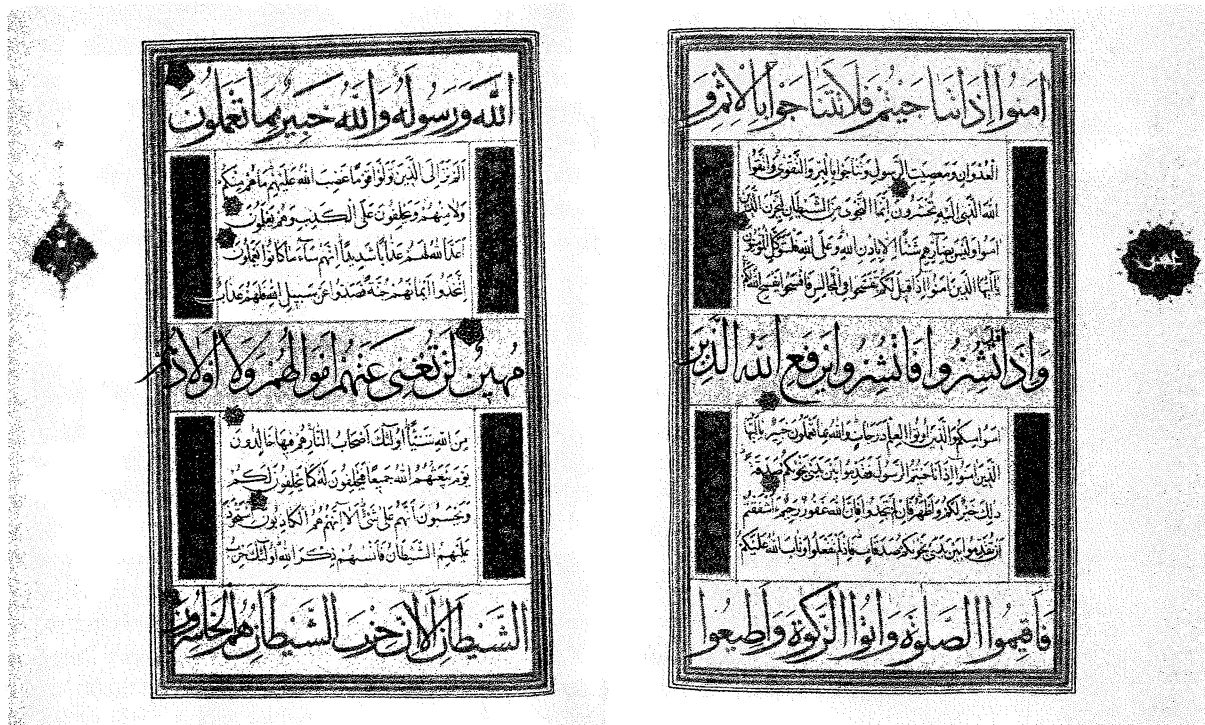
and *riqa'*) and the two hanging scripts (*ta'liq* and *nasta'liq*),⁴ before a third section on the newer pictorial scripts.

Of all eight scripts, by far the most important in this period was *nasta'liq*. Habiballah Faza'ili, the modern expert on Persian calligraphy, has estimated that 75 per cent of everything written in Persia from the mid-fifteenth century was done in this script.⁵ It was favored for fine copies of Persian literary works, many of them illustrated, and for calligraphic specimens (*qit'a*), which were often assembled in albums. Calligraphers refined the presentation of these *nasta'liq* compositions, using fine paper, which was often brightly colored, highly polished, and gold-dusted, as well as colored inks, and often setting their elaborately planned calligraphic compositions into decorated borders (e.g., Figure 10.6). Calligraphers also streamlined *nasta'liq*, developing a new style called *shikasta-yi nasta'liq* (broken *nasta'liq*), usually shortened to simply *shikasta*. Marked by many unauthorized connections and stylizations that make it difficult to read without knowing the standard conventions, *shikasta* was typically used for documents and letters, in which the striking visual effect of the swirling forms sometimes overrides the readability of the text.

This was the time when Persian painting came of age, and the proliferation of images impacted calligraphy dramatically. Manuscript paintings produced by royal workshops in the Iranian lands during the late fifteenth and early sixteenth centuries are universally considered the finest of the genre, with complex compositions executed in crystalline colors. These figural paintings clearly hit their mark, provoking conservative Muslims to condemn them as skirting the fringes of decency or even blasphemy.⁶ Contemporary poets reacted by articulating the theory of the two pens (*qalam*), which sought to justify painting as the equivalent of writing, sprung from the same roots. First documented in a versified section on the excellence of art in 'Abdi Beg Shirazi's *A'in-i Iskandari* (Rules of Alexander) composed in 950/1543–4, the theory of the two pens quickly became part of the standard Safavid historiography on the arts, incorporated in treatises and album prefaces and illustrated visually in them.⁷ Despite conservative aversion, figural painting continued to be a major art form in Iran in succeeding centuries, particularly as images proliferated after the introduction of mechanical means of reproduction like lithography, printing, and photography.⁸ Calligraphers, in turn, reacted to the importance and spread of images with different types of pictorial writing, adapting zoomorphic, micrographic, floral, and figural decoration to writing. The word and the picture became intertwined.

Refinement of the Six Pens

Calligraphers working in Iran and the adjacent lands in these centuries refined the round scripts known as the Six Pens as they had



been developed earlier in Iran. As before, these round scripts were standard for copying fine Koran manuscripts, but in comparison to earlier examples, those made in the early sixteenth century are less important.⁹ Few are signed and dated; most are single-volume manuscripts. The main center of production was the provincial city of Shiraz in south-western Iran.¹⁰ Since escaping the ravages of the Mongol invasions, Shiraz had flourished as a center of Persian literature and culture in general and manuscript production in particular. Away from court patronage, calligraphers worked at home or in commercial establishments, producing many illustrated manuscripts whose stock backgrounds, simplified compositions, and repetitive figures suggest a certain rote level of production. B. W. Robinson coined the term 'commercial Turkoman style' to describe the many manuscripts produced there in the second half of the fifteenth century, and commercial production continued under the Safavids in the sixteenth century.¹¹

A very large (43 × 29 cm) manuscript signed by Ruzbihan Muhammad al-Shirazi (Figure 10.1) exemplifies the commercial (and conservative) nature of Koran production in Shiraz.¹² Descended from a noted family of artists, Ruzbihan was one of the most important calligraphers in early-sixteenth-century Shiraz, known from both chronicles and many signed works, at least eight dating between 920/1514 and 954/1547.¹³ Unlike artists who worked in court-sponsored ateliers in Tabriz, Herat, and Bukhara, Ruzbihan was one of many calligraphers

Figure 10.1 Double page containing Sura 58:9–19 from a single-volume Koran manuscript with eleven lines per page transcribed by Ruzbihan Muhammad al-Shirazi.

Ruzbihan was the most famous scribe and illuminator working in Shiraz during the first half of the sixteenth century, and his work exemplifies how calligraphers in the early Safavid period refined the Six Pens. Each of the text pages in this stupendous Koran manuscript has large lines of *muhaqqaq* at the top and bottom and *thuluth* in the middle, sandwiching panels with four lines of *naskh*.

and painters who worked at Sufi shrines in Shiraz.¹⁴ The manuscripts produced there include not only codices of the Koran written in the Six Pens but also copies of poetic texts written in the hanging *nasta'liq*, showing that Safavid calligraphers, like their fifteenth-century predecessors, were well versed in both types of script. The poetic texts, furthermore, are often illustrated with architectural scenes showing high iwans and colorful tilework surely meant to represent local shrines. In many cases, the calligrapher, like Ruzbihan, was also responsible for illumination and even illustration.¹⁵

This single-volume Koran manuscript comprises 445 folios with eleven lines per page (Figure 10.1). The top and bottom are penned in gold in a fine *muhaqqaq*; in the middle is a line of similar size in *thuluth* penned in blue. All three lines of large script, with *alif* c. 2 cm, are set on a pinkish ground. Sandwiched between the three large lines are eight lines of a smaller *naskh* on a white ground. The script is distinguished by the typical Shirazi-style of long-swooping tails with an angular bend. Gold six-petaled rosettes in the text mark the verse divisions, and marginal medallions mark every fifth and tenth verse.

Ruzbihan's copy bears immediate comparison with the one penned about 150 years earlier by another Shirazi calligrapher, Zayn al-'Abidin (Figure 7.12). The manuscripts share the same large size, but the thirty volumes of the earlier copy have been compressed into a single, fat volume here. The text pages in both manuscripts juxtapose different sizes and types of script in a tripartite format, but the written area here has shrunk so that it occupies less than one-third of the page, leaving wide spaces for the margins.¹⁶ Correspondingly, the illumination has increased in both quantity and variety. On text pages, for example, the panels at the end of the shorter lines of *naskh* are filled with gold arabesques with blue lotus-like blossoms. The palette has also widened to include green and orange.

The increase in illumination is also clear from the elaborate opening and closing pages. The opening pages contain roundels inscribed in white *tawqi'*.¹⁷ Rather than a dedication to a particular person, they contain an apposite Koranic text (17:88) saying that all of mankind and the *jinn* together could not produce the like of this Koran. The opening folios of text are even more elaborately decorated.¹⁸ The first *sura*, divided evenly between the double-page spread, is written in white *rayhan* inside oval medallions with floral scrolls. Above and below are cartouches inscribed in blue *riqa'*. The upper one gives the *sura* title and verse-count, the lower one another common Koranic citation (56:77–8), saying that only the clean shall touch this revelation from the Lord of the Worlds. The text is set into a pattern of superimposed clouds and floral scrolls painted in many colors on a deep blue ground. A floating border of blue sprays and spikes bridges the transition from densely covered illumination to blank margin. The wealth of illumination threatens to overwhelm the calligraphy, which disappears in a riot of vegetation. Such

elaborate illumination was time-consuming, and to spread up production, it was produced with templates. The calligraphy, however, was always done freehand.¹⁹

The closing pages of this Koran manuscript are equally sumptuously decorated. On the final page (445a), the lower lines of *naskh* enclose two small panels with a text written vertically at a right angle to the rest of the text saying that Ruzbihan Muhammad al-Tab'i al-Shirazi was responsible for both text and illumination.²⁰ He was justly proud of his work, for this is one of the finest Koran manuscripts to survive from the sixteenth century. Its judicious combination of scripts, juxtaposing all of the Six Pens, is enhanced by the use of many colors of ink set against brightly painted grounds. The writing is clear and legible, and the illumination glorious.

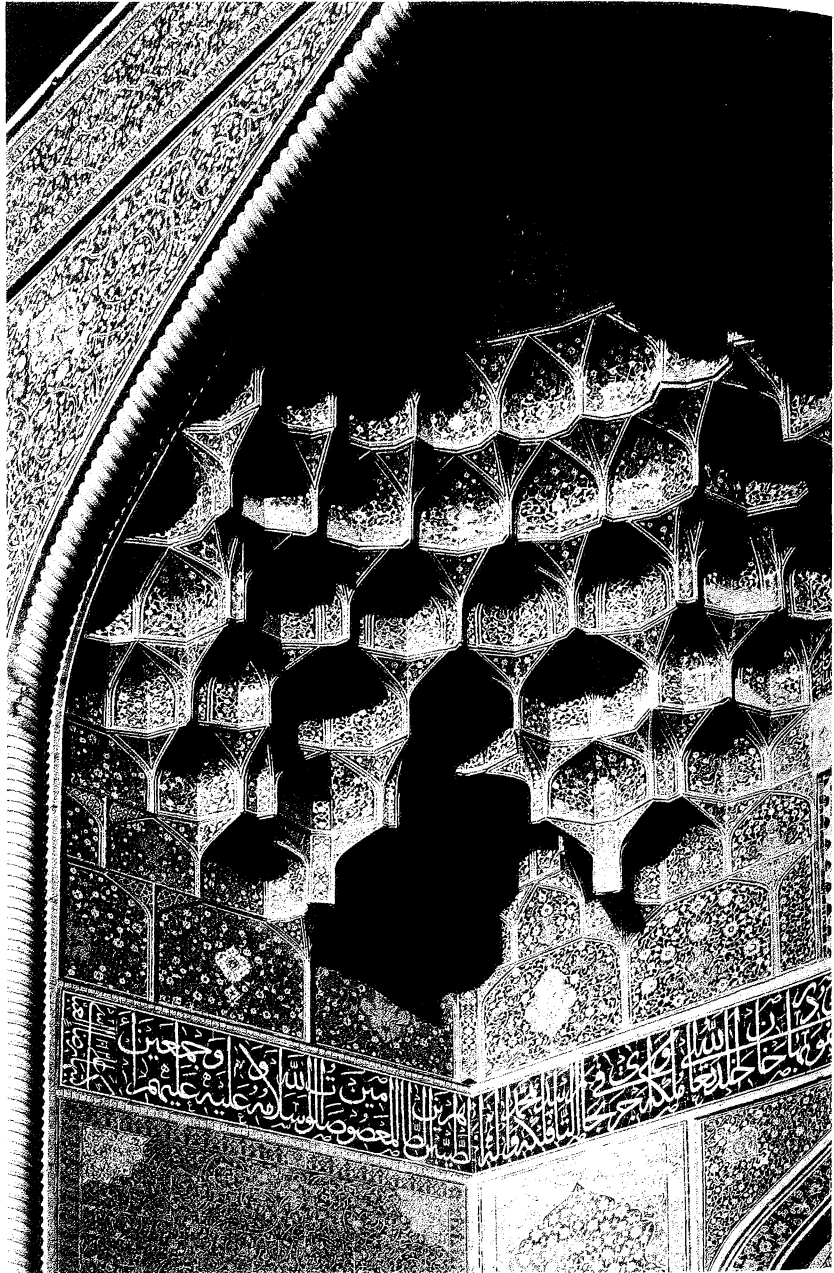
In many ways the manuscript signed by Ruzbihan typifies Koran production in sixteenth century Iran.²¹ Most copies comprise a single volume transcribed in one or more of the Six Pens. Most combine large and small scripts, usually *thuluth*, *muhaqqaq*, and *naskh*, arranged in panels.²² Most open with illuminated and inscribed medallions set in illuminated bands or surrounded by borders of blue spikes or fern-like finials. The Fatiha, the opening *sura* of the Koran, is generally spread across the next two pages,²³ and the text is often integrated into double-page compositions or framed by illuminated borders. The first verses of Sura 2 are placed on the following page (3b), often written over a gold ground with scrolls beneath an elaborate rubric that almost always extends to the top of the page. Some manuscripts also have illuminated pages around the opening verses of Sura 18, which marks the middle of the Koranic text. Others have illuminated borders around pages marking the division into thirty sections (*juz*).

In addition to the decorated pages containing the closing verses of the text, many sixteenth-century copies of the Koran also have several extra pages at the end of the manuscript. They contain a *du'a-i khatm*, a prayer to be read upon completing the reading of the Koran, and a *falnama*, an aid to divination, in which the letters of the Arabic alphabet are presented in a table together with an explanation, usually in Persian, of the good or bad fortune associated with each letter. The prayer is often written in *muhaqqaq*, but the aid to divination is written in *nasta'liq*, the hanging script that had become standard for transcribing works of Persian literature. Ruzbihan himself often penned this additional text.²⁴

Along with Koran manuscripts, Safavid calligraphers also used the Six Pens, notably *thuluth*, for inscriptions. Some of the most famous examples are those designed by the calligrapher 'Ali Riza for the new capital established by Shah 'Abbas (r. 1587-1629) at Isfahan.²⁵ 'Ali Riza was responsible for those in the mosque north-east of the maydan underwritten by 'Abbas's overseer (*nazir*) Maqsd Beg in 1010-11/1601-3 as well as those on the maidan in the Mosque of Shaykh Lutfallah (1012-25/1603-17) and on the

Figure 10.2 Detail of the inscription designed by 'Ali Riza 'Abbasi and executed in tile mosaic in 1012/1603–4 on the portal of the Mosque of Shaykh Lutfallah in Isfahan.

The inscription shows how Safavid calligraphers perfected the style of monumental *thuluth*. Tall verticals march across the inscription and are countered by long horizontals formed by the extended tails of final *ya*' which divide the text into two tiers. The signature of the designer, the calligrapher 'Ali Riza, is squeezed in vertically at the end to set it off from the horizontal bands with the foundation inscription.



portal of the Shah Mosque (1025/1616–17). His majestic *thuluth* is notable for its strong sense of order and proportion. 'Ali Riza made the long texts clear and legible by dividing the inscription into two tiers, typically separated by the long tail of final *ya*' which extends backwards to the left. This long horizontal stroke juxtaposes the extended risers of *alif*, *lam*, and similar tall letters. 'Ali Riza played on this device in his signature, found, for example, at the end of the

foundation inscription on the portal of the Mosque of Shaykh Lutfallah (Figure 10.2). The signature is set vertically in order to stand out visually from the main text, which runs horizontally around the portal below the *muqarnas* semidome. The signature reads *katabaha 'ali riza al-'abbasi 1012*, literally saying that 'Ali Riza wrote it in 1012 (corresponding to CE 1603–4) and meaning that he designed the inscription. He wrote his first name *'ali* and the last syllable of his epithet *'abbasi* in the upper line, with the long final *ya'* in each word or syllable extending backwards in a flat horizontal stroke, and then neatly inserted the date in figures in the middle.

Skilled calligraphers adapted the lengthy text in these foundation inscriptions to fit the specific locale. 'Ali Riza, for example, arranged the patron's long rhyming titles so that the shah's name and epithets, 'Abbas al-Husayni al-Safavi, fell over the doorway. Thus anyone entering the building was literally under the ruler's sway. Tile-cutters added color to enhance the message. On the Shah Mosque, for example, most of the text is executed in white tile which stands out against the background of dark blue, but the name of the patron is written in light blue over the doorway. Like the gold ink used by calligraphers, later tile-cutters used yellow tile to highlight the name of a royal patron. 'Ali Riza's style of elegant *thuluth* inscriptions in tile mosaic remained current throughout the sixteenth century, notably in the work of his student, Muhammad Riza, whose fifty-year long career stretched into the 1670s.²⁶

The forty-year reign of Shah 'Abbas is considered by many the apogee of artistic production in Safavid Iran, and far less attention has been paid to the arts, including calligraphy, under his successors. Calligraphers in Iran, particularly those associated with the court, continued to produce fine Koran manuscripts, but many have been remargined, perhaps because the pigments used for the multiple rulings around the text were corrosive and ate through the paper, thereby detaching written area from surrounding margin. These refurbishments, combined with lack of study, make it difficult to establish regional styles and even to distinguish a seventeenth-century Koran manuscript made in Iran from a contemporary one made in Mughal India or Ottoman Turkey.²⁷

As before, many of the finest Koran manuscripts produced at the end of the Safavid period are large single-volume copies, but the text is written in *naskh* set in horizontal bands outlined in gold. Large bands of Arabic text inclose narrower bands with Persian glosses written in red in a tiny *nasta'liq* hand.²⁸ The interlinear translations were part of the religious revivalism that occurred under Muhammad Baqir Majlisi (1627–98), the most powerful Shi'ite scholar of the Safavid period.²⁹ Personally austere and exoteric, he was a prolific scholar, devoted to promulgating Shi'ism. His magnum opus is the enormous *Bihar al-Anwar* (Oceans of Lights), a twenty-six volume encyclopedia amassing all the Traditions attributed to the Shi'ite imams. In order to make the information available to the many

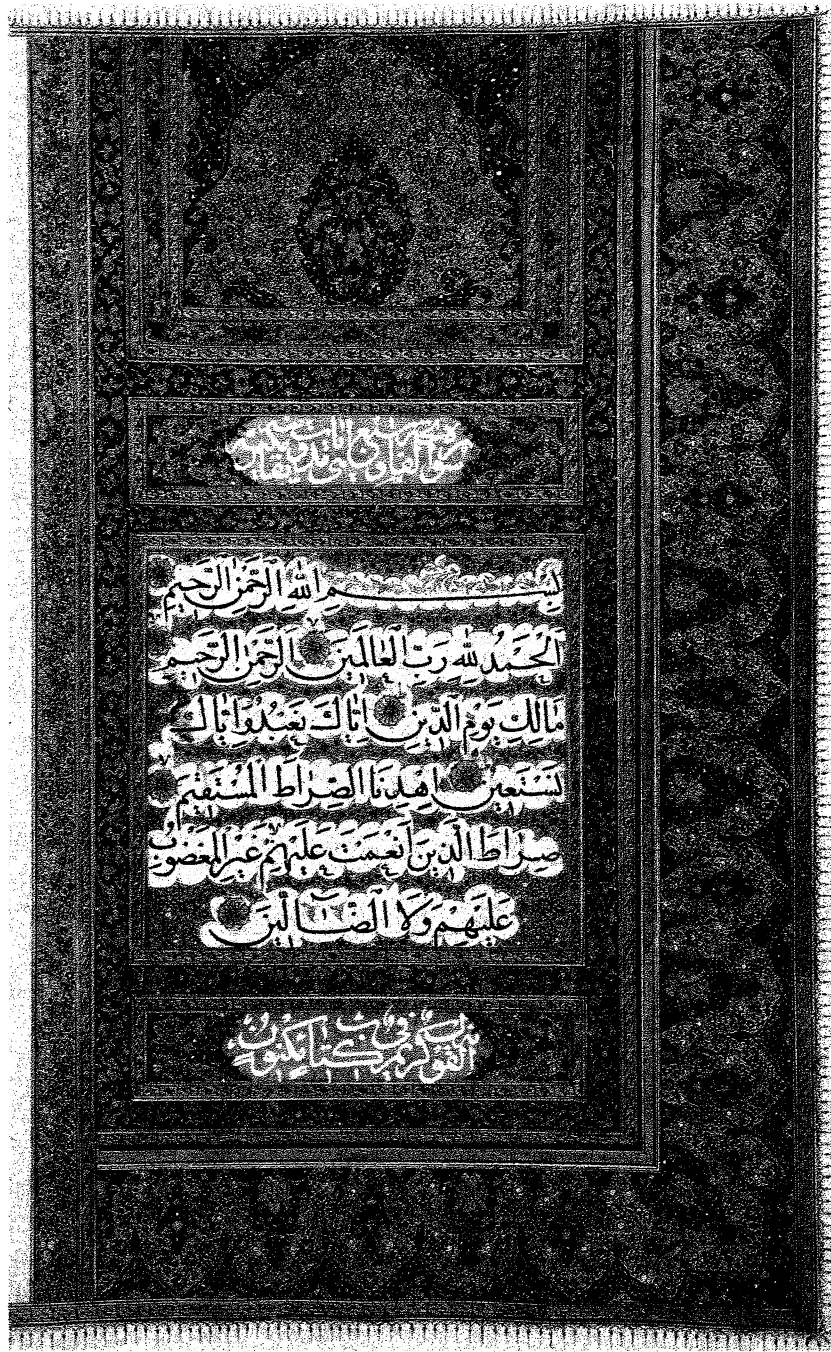


Figure 10.3 Opening page with Sura 1 from a single-volume Koran manuscript with twelve lines per page completed by Ahmad Nayrizi in Safar 1125/March 1713.

This manuscript epitomizes the clear readable *naskh* canonized by Ahmad Nayrizi at the turn of the seventeenth to eighteenth century. The lines are well spaced; the letters are well formed and pointed with vocalizations given as much weight as the letter and placed at regular height.

shi'ites in Iran who knew no Arabic, he also translated parts of his work into Persian. These Koran manuscripts with Persian translations served the same didactic purpose and audience.

These Koran manuscripts (Figure 10.3) and related religious texts in Arabic are transcribed in a new style of *naskh* that is notable for its clarity and readability. Its most famous exponent is Ahmad Nayrizi, the most important calligrapher working in Iran at the turn of the seventeenth to eighteenth century.³⁰ Ahmad Nayrizi was both long-lived and prolific. Dated works range from 1087/1676–7 to 1153/1740.³¹ Signed works include many Koran manuscripts and prayer books, calligraphic exercises, lacquerwork, and a Koranic inscription in the Chihil Sutun palace dated 1127/1715. These works demonstrate the wide variety of subjects and media that calligraphers in the late Safavid period were expected to control. The signatures also show that, as with other famous calligraphers like Shaykh Hamdallah (see Chapter 11), it is essential to compile an artist's biography from signed works, for the written sources, in the case of Ahmad Nayrizi beginning with the nineteenth-century biography by Mirza Sanglakh, tend toward the hagiographic and are often unreliable.

Ahmad Nayrizi's specialty was *naskh*, the round script that had been used for regular copying but that was transformed at this time into a fine calligraphic style used for manuscripts of the Koran and other religious texts in Arabic.³² The style he perfected has evenly spaced lines and well-formed letters, with vocalization placed at uniform height throughout the text and serifs added on both right and left of the main strokes. *Alif* is a single, tapered stroke without serif. Double dots for *ta'* and *ya'* are often written vertically (Figure 10.3a), and *ra'* often connects to final *ha'/ta' marbuta* (Figure 10.3b). Ahmad Nayrizi closed up the spaces between words so that the letters flow smoothly and rhythmically across the flat baseline, in contrast to the contemporary *nasta'liq*, in which syllables or words are posed on the diagonal. Ahmad Nayrizi often played off these various scripts, penning the text in a sweeping horizontal *naskh* and the headings in a rounded *thuluth*, but adding his signature in *riqa'* or in the sloping *shikasta*.³³ Opening pages in Koran manuscripts penned by Ahmad Nayrizi, like this one, typically have exuberant decoration in gold, blue, and a vibrant carmine-red, the same color used for the punctuation indicating required and optional stops.

Ahmad Nayrizi is often credited with inventing this style of *naskh*, but just as Ibn Muqla, Yaqut, or Mir 'Ali Tabrizi did not invent the *naskh*, Six Pens, or *nasta'liq* attributed to them, so too Ahmad Nayrizi did not invent this style but rather codified and regularized what others before him had developed. Ahmad Nayrizi himself shows his debt to earlier calligraphers, often copying works by his famous predecessors such as 'Ala' al-din Tabrizi, teacher of 'Ali Riza 'Abbasi. By the eighteenth century this adulation of earlier hands was an important part of the Iranian tradition of justifying one's own position by linking it to masters of the past. It is thus a visual equivalent



Figure 10.3a



Figure 10.3b

of written accounts in which the history of calligraphy is described in terms of master–pupil relationships. In the same way, artists copied paintings from earlier works to visually link themselves with earlier masters.³⁴

Ahmad Nayrizi's reputation soon grew. Many of his calligraphic specimens and manuscripts were collected by later courtiers and connoisseurs.³⁵ Later calligraphers took Ahmad Nayrizi as the model to be emulated, and his hand became the standard in the Qajar period for copying manuscripts of the Koran and other pious texts. Students of calligraphy were told that if they wanted to write like an important calligrapher, they should try to become like Ahmad Nayrizi.

The continuation of the style of *naskh* canonized by Ahmad Nayrizi can be seen in the work of the celebrated Shirazi calligrapher and poet, Muhammad Shafi' (1782–1845), also known as Mirza Kuchuk, and better known by his penname Visal.³⁶ One of the most famous masters of *nasta'liq* in nineteenth-century Iran, Visal also transcribed pious works in the style of *naskh* canonized by Ahmad Nayrizi. Some of Visal's works are direct copies of Ahmad Nayrizi, including even his signature.³⁷ In some cases, the chain of transmission goes further back, as in a calligraphic specimen (Figure 10.4) copied by Visal in 1258/1842–3.³⁸ The text, written horizontally in *naskh*, contains the Prophet's comments when asked about unity with God (*tawhid*). Diagonal lines at the bottom, also written in *naskh*, explain that Ahmad Nayrizi had copied the text in Jumada I 1120/July–August 1708 from an exemplar composed by his teacher Muhammad Ibrahim Qummi and that Visal the poet was the second copyist in 1258/1842–3. The composer, Muhammad Ibrahim Qummi, the son of Muhammad Nasir, had been active under the Safavid shahs Sulayman and Husayn and died sometime after 1115/1703–4.³⁹ A master of *naskh*, he instructed Ahmad Nayrizi, who made the first copy while his teacher was still alive. Over a century later the text was copied again by Visal, who shows his debt to his predecessor by using the same style. In both texts, the *naskh* resembles that canonized by Ahmad Nayrizi, with large, clear, and upright letters set in cloud bands against a gold ground. Visal used the same bold *naskh* when transcribing other Arabic texts.⁴⁰

The transmission of styles from one generation to the next was facilitated by the master–pupil relationship in families. Fathers often taught their sons, and the practice of calligraphy, like many other professions, passed down through families. Visal, for example, had six sons who were also calligraphers and painters. Like many artistic clans in Qajar times, the Visal family benefited from royal favor. Muhammad Shah Qajar, for example, issued decrees in 1845 and 1848 allocating the family a fixed amount of the tax revenues from Fars province, thereby providing them with perpetual financial security.⁴¹

The close association between calligraphers and the court meant that many members of the royal family were instructed in the noble art of calligraphy. The shahs themselves were good calligraphers.⁴² So

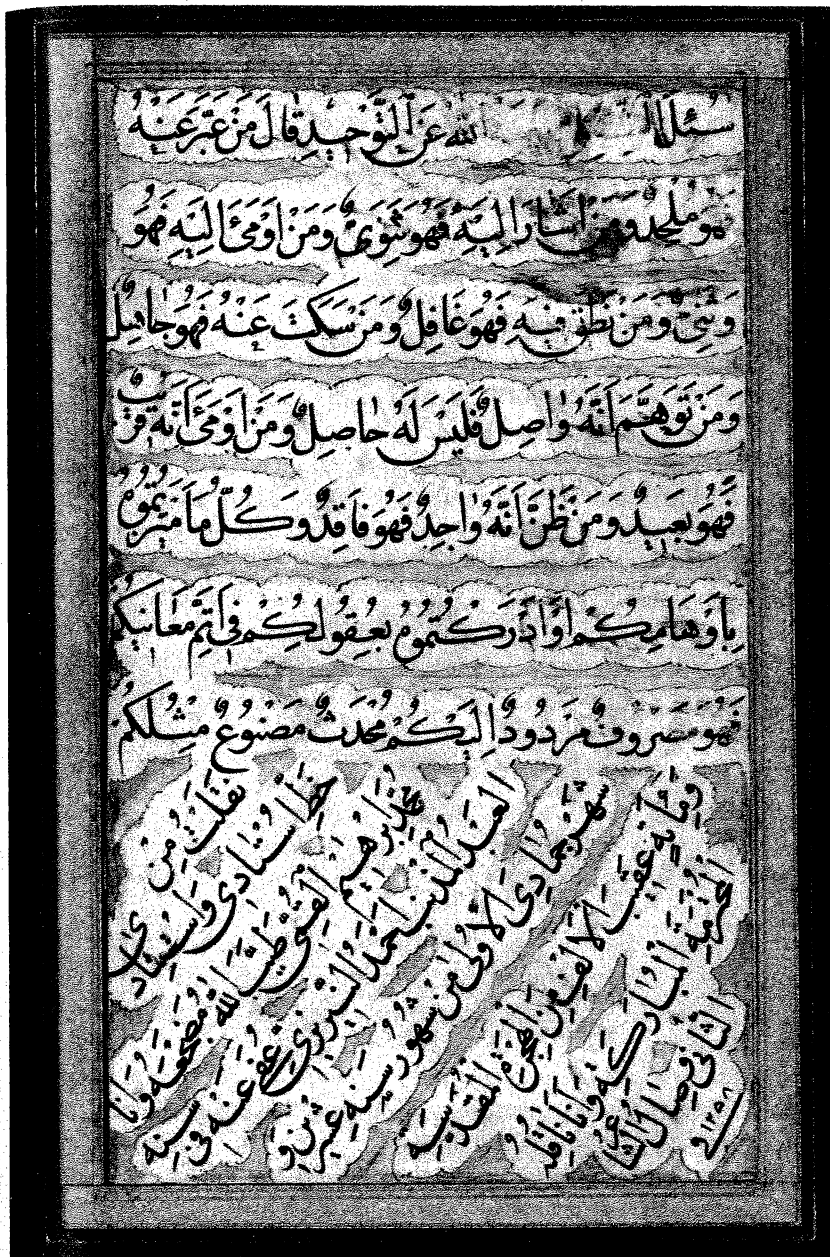


Figure 10.4 Hadith copied by Muhammad Shafi', better known as Visal-i Shirazi, in 1258/1842–3 from a text copied by Ahmad Nayrizi in Jumada I 1120/July–August 1708 from a text composed by his teacher Muhammad Ibrahim Qummi.

This calligraphic specimen exemplifies the chain of transmission of *naskh* in the later period. The original was composed by Muhammad Ibrahim Qummi and copied by his pupil Ahmad Nayrizi during the composer's lifetime. It was copied again over a century later by Visal Shirazi, who showed his chain of transmission and established his lineage by using the same style.

were many princesses. Ziya al-Saltanat (Light of the Sultanate), the daughter of Fath 'Ali Shah and Maryam Yazdi and known as Shah Begum, was renowned for her fine hand.⁴³ She was in charge of her father's private correspondence, and the superb Koran manuscripts in her hand show how strong the tradition of Ahmad Nayrizi was, repeating the script and colors of the model.⁴⁴ She penned the text in the smooth flowing *naskh* typical of the style associated with Ahmad

Nayrizi, with words set in cloud bands reserved against a gold ground. As in the model, the opening pages of text are richly illuminated, notably in gold, ultramarine, and carmine red, but on a smaller and more delicate scale with multi-color floral compositions. The codex in Tehran also contains a Persian commentary, written in the margin in a smaller *nasta'liq* hand, with an 'Alid hadith, highlighted in red, reporting that the Prophet said, 'I am the city of knowledge and 'Ali is its gate.' The commentary acts like a rayed halo, with the lines of text flowing out from the central block. The small *nasta'liq* is subordinated to the strong black *naskh*. The overall effect is stunning.

Refinement of the hanging scripts

In addition to the Six Pens, calligraphers working in Iran during this period also refined the hanging scripts. *Ta'liq* remained the main script used for official correspondence by the many scribes (*munshi*) in the Safavid chancery. Qadi Ahmad devoted a short chapter to the masters of this script, naming some thirty scribes, this at a time when the Safavid administration was just beginning to burgeon.⁴⁵ Like calligraphers, many scribes belonged to clerical families. Some worked for members of the Safavid royal house. Qadi Ahmad's father, for example, began as an amanuensis in the chancery of Tahmasp's brother, Sam Mirza, governor of Khurasan. Khwaja Majd al-din Ibrahim acted as vizier to Tahmasp's daughter, princess Pari-khan Khanum.⁴⁶ Such scribes were expected to be versed in all the epistolary skills, composition as well as writing. Mirza Ahmad ibn 'Ata'allah, son of Shah Tahmasp's vizier and keeper of the shah's ink and inkwell, for example, was renowned for drafting letters to the Ottomans.⁴⁷

Like its predecessors, the Safavid chancery issued official proclamations written in *shikasta* (broken) *ta'liq*.⁴⁸ So did the major Shi'ite shrines, who maintained their own chanceries to record deeds of endowments and issue letters and permissions. This letter of recommendation, or *ziyaratnama* (Figure 10.5), was issued by the shrine of Imam Riza at Mashhad on 14 Dhu'l-Hijja 937/29 July 1531 to commend the pilgrim Darvish Khidr Shah ibn Ustad Mahmud Yazdi.⁴⁹ Having duly performed the rituals of pilgrimage at Mashhad, he intended to visit Shi'ite sites in Iraq and requested this letter of recommendation from the shrine. The text ends by calling upon Shi'ite leaders (*naqibs*) and descendants of the Prophet (*sayyids*) as well as all people who love the imams to recognize Darvish Khidr Shah as a Mashhad pilgrim, treat him with honor, and exert themselves to carry out his requests. Such letters were common,⁵⁰ but this example is one of the earliest to survive.

The document has now been cut up (this is the last of four surviving pages numbered five to eight). Assuming that the missing four pages were the same size as these four, the original document would have measured almost two meters long by a quarter meter wide,

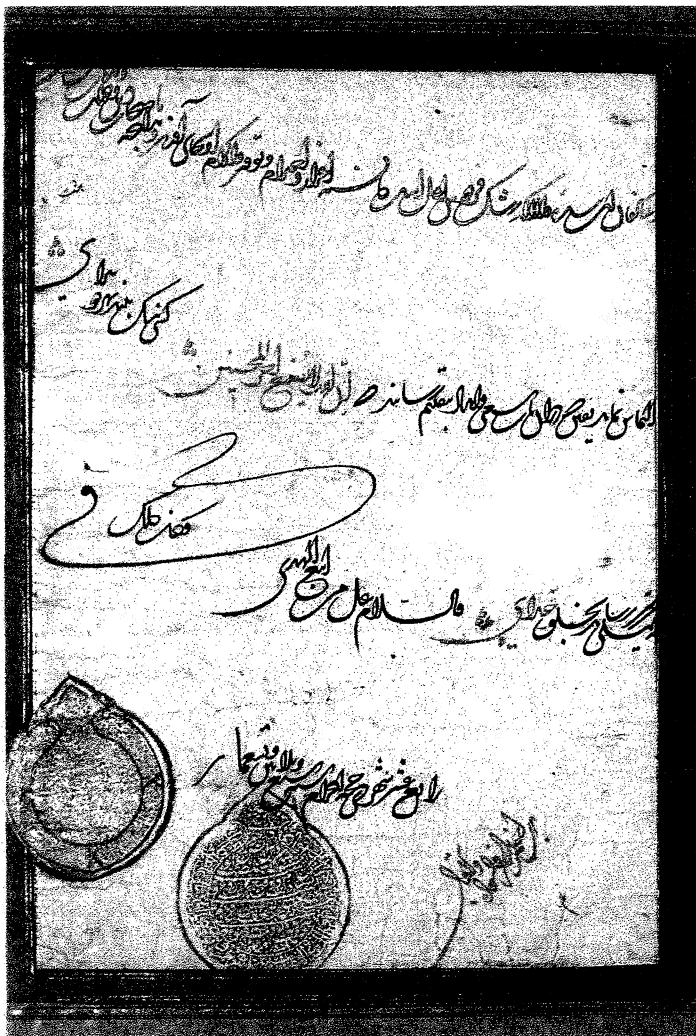


Figure 10.5 Closing page from a ziyaratnama (letter of recommendation) issued by the shrine of Imam Riza at Mashhad on 14 Dhu'l-Hijja 937/29 July 1531.

This letter recommending Darvish Khidr Shah as a worthy person who had performed the pilgrimage to Mashhad was intended to afford protection. Originally in the form of a scroll, it has been cut into sections. It is penned in elegant *ta'liq* script in alternating lines of blue, black, and gold and stamped at the bottom with seals mentioning the seventh imam 'Ali ibn Musa ibn Ja'far, who is buried at Mashhad.

approximately the same width but twice the length of the Ilkhanid decree issued some two centuries earlier (Figure 7.13). As with earlier examples, the lines are widely spaced to emphasize the importance of the document and ascend at the left to prevent additions, but the *ta'liq* used in the letter of recommendation is smoother and more fluid. The scribe has emphasized the calligraphic effect of the script, adding, for example, a very long flourish at the end of the word *fi* (in), which introduces the date written in the bottom line. As in contemporary manuscripts, the scribe added color to enhance the message, which is penned in alternating lines of gold, blue, and black, with additional titles and words of veneration added in gold. The letter was written on paper sealed with a stamp dated 934/1527–8 mentioning 'Ali ibn Musa ibn Ja'far, the seventh imam who is buried at Mashhad. Such paper must have been prepared in advance, as the line with the

date runs over the seal. Documents issued by the imperial chancery were similarly stamped with royal seals containing the ruler's genealogy and verses to 'Ali.⁵¹ Like the Ilkhanid scroll, these documents typically opened with the ruler's emblem, or *tughra*, and the beginning of this letter probably had an elaborate invocation.⁵²

While *ta'liq* remained the script of the chancery, *nasta'liq*, the other hanging script, remained the favored script for transcribing non-religious texts, especially Persian poetry. With repeated use over the course of the sixteenth century, the script became more fluid, with letters posed on a steeper slope and written with longer strokes. Letter forms were increasingly regularized, just as they had been for the Six Pens. Such canonization was possible through the study of earlier masters and the writing down of treatises that described the forms of the individual letters.⁵³ Calligraphers then extended this style to new forms and formats, often juxtaposing the same script in different sizes.

The more angular western style of *nasta'liq* that had developed at the Turkoman courts in north-western Iran (Figure 7.18) gradually gave way to the more fluid eastern style canonized by Sultan 'Ali Mashhadi (Figure 7.17). This was only natural in Herat, as many calligraphers who worked there in the early sixteenth century were students of the master. Several were named Muhammad and had to be singled out by various epithets,⁵⁴ but the most famous (and most prolific) calligrapher of the next generation in Herat and the eastern lands was Mir 'Ali Haravi (c. 1476–1544).⁵⁵ A poet famed for his quatrains with riddles (*mu'amma*) and chronograms and a master of *nasta'liq*, Mir 'Ali designed architectural inscriptions and penned manuscripts, but was especially renowned for his calligraphic specimens (*qit'a*). Like most produced in Iran during the sixteenth and seventeenth centuries, they are usually transcribed on vertical (portrait-format) pieces of paper, measuring less than 25 cm high and often colored. Each contains a Persian quatrain (*rubai*) written diagonally and reading from top to bottom. The sloping *nasta'liq* calligraphy used in these poetic specimens left small triangular panels in the upper-right and lower-left corners. The upper one usually contains illumination or a short pious phrase, while the lower one is reserved for the signature of the calligrapher, sometimes written in a smaller *nasta'liq* hand.⁵⁶ Such specimens may well have circulated commercially, and many were later collected and mounted in albums.⁵⁷ Many other examples of Mir 'Ali's work also survive separately.⁵⁸ According to the Ottoman chronicler Mustafa 'Ali, Mir 'Ali permitted his pupils to put his signature on their works, and this working method may explain the profusion of calligraphic specimens that bear his name.⁵⁹

Some of Mir 'Ali's Persian quatrains were composed for specific events, such as this example (Figure 10.6) from the so-called Kevorkian Album, now divided between the Metropolitan Museum of Art and Freer Gallery of Art.⁶⁰ It contains a chronogram for the

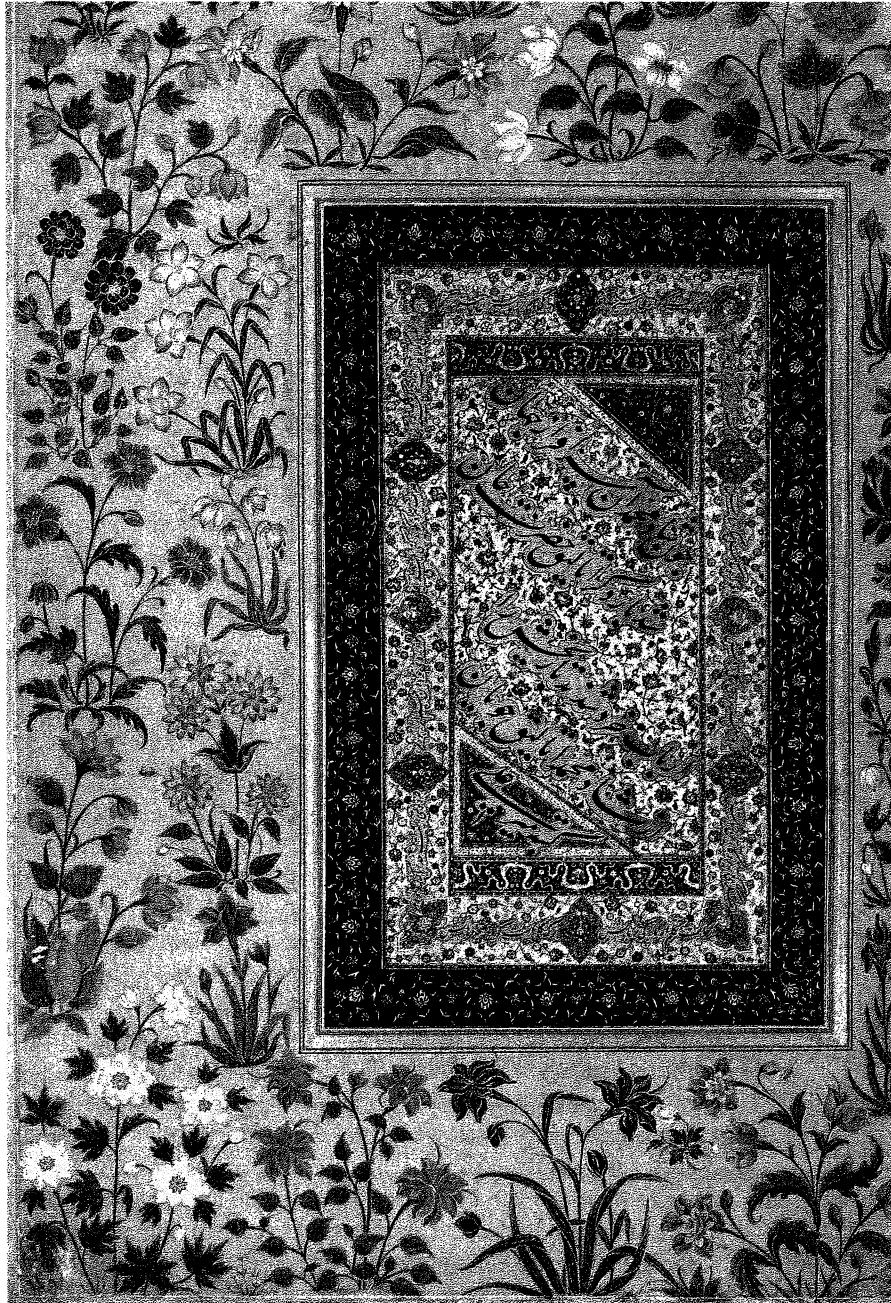


Figure 10.6 Quatrain (rubai) transcribed by Mir 'Ali Haravi c. 1534 and later mounted in the so-called Kevorkian Album.

The quatrain in the center signed by Mir 'Ali Haravi contains a chronogram for the second investiture of Shad Muhammad as regent (*ataliq*) in Bukhara in 941/1534–5. Mir 'Ali's thick line set the standard for succeeding generations when it was assiduously collected by Mughal emperors and mounted in albums like this one. In mounting the quatrain on the page, Mughal artists cut-out verses from two unrelated love poems (*ghazal*) written in a *nasta'liq* script and encased the poetry in a garden of floral and vegetal decoration.

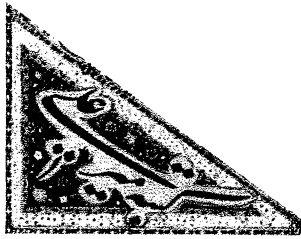


Figure 10.6a



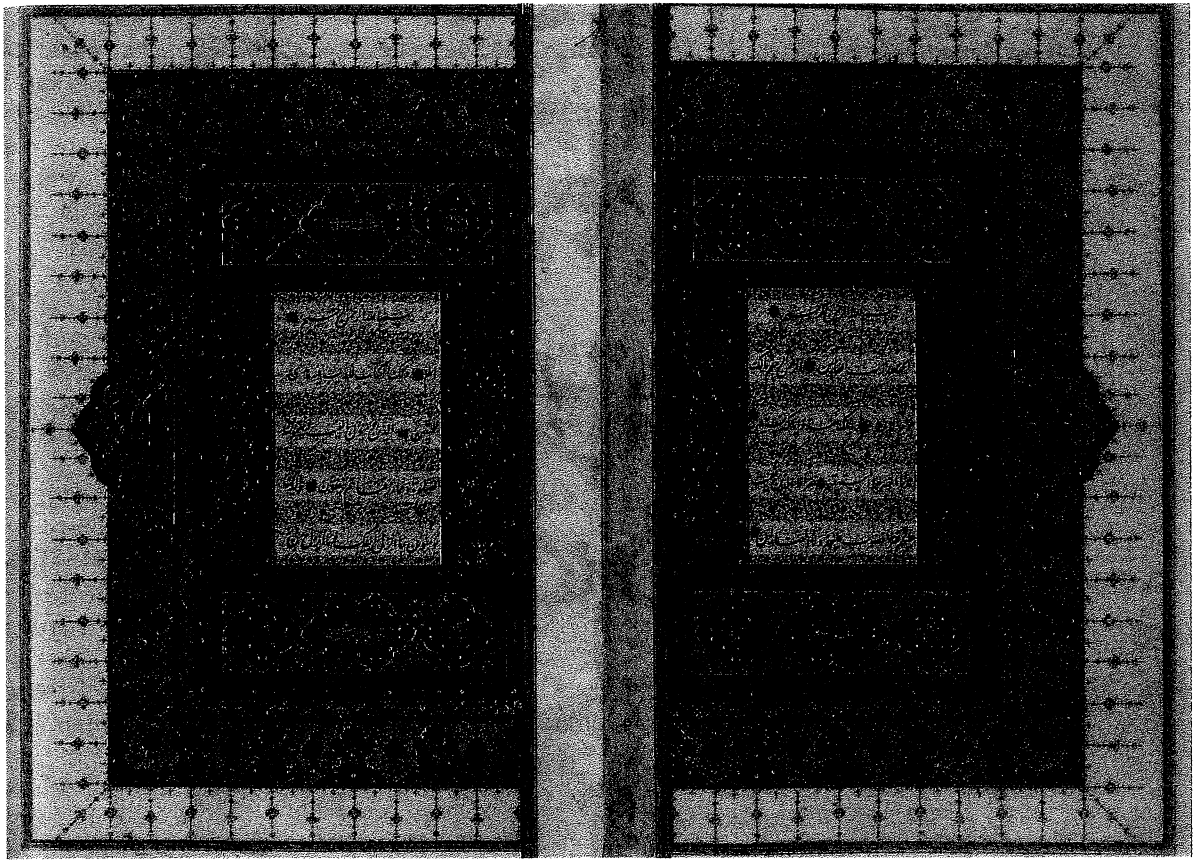
Figure 10.6b

second investiture of Shad Muhammad as regent (*ataliq*) of Bukhara in 941/1534–5 and was probably composed by the calligrapher at that date. Like most of Mir 'Ali's quatrains, this one is written on the diagonal with a thick line, much wider than the one used by his master, Sultan 'Ali (Figure 7.17). At the bottom left (Figure 10.6a) is the signature 'Mir 'Ali wrote this' (*katabahu mir 'ali*), in his distinctive hand, with the tail of final *ya*' on 'ali extending back over the word *mir* and pointed with two dots and a dagger. The verses were cut-out and pasted on the album page, and the importance of the signature is clear, for the lower margin skirts the dot below *ba*'.

Each line of the quatrain has at least one extended stroke. Whenever possible, these elongations in *nasta'liq* should come, as here, in the middle of a line, rather than in the first or last words. The rhythm engendered by these elongations is enhanced by the repeated shapes of the letters and words. The first, second, and fourth lines rhyme in the syllable *-an*, so the lines end with the same shapes of *alif* and *nun*. The name Muhammad is repeated in the middle of lines one and four, and the word *ataliq* (regent) in lines two and four. Mir 'Ali was notoriously casual with his pointing. He often omitted diacritical dots and never added the stroke to distinguish *gaf* from *kaf*, as in the word *ruzgar* in line two (Figure 10.6b). Professional calligraphers considered him an autodidact who lacked the discipline of rigorous training, and compared to the *nasta'liq* of his teacher, Sultan 'Ali, Mir 'Ali's calligraphy is somewhat impulsive and less formal and dignified. Nevertheless, it set the style for succeeding generations, especially in India.

Sixteenth-century calligraphers often juxtaposed different sizes of *nasta'liq*, playing off the larger (*jali*) size favored by Mir 'Ali for the quatrain against the small (*khafi*) size perfected by Sultan 'Ali Mashhadi for the signature and date.⁶¹ Such practice engendered a taste for juxtaposing different sizes of *nasta'liq*, and when these quatrains in larger script were mounted in albums, they were often surrounded by verses in smaller script.⁶² On this page for example, Mir 'Ali's quatrain is surrounded by fragments in cartouches written in a tiny version of *nasta'liq*. These fragments come from two *ghazals*, sonnet-like poems with monorhyme that typically deal with love, either human or divine, and often play on the ambiguities and parallels between the two. The verses on this page deal with the beloved's tresses and mouth. Typically, these verses were taken from other works and bear only a tenuous relation, if any, to the quatrain in the center.⁶³ In this case, one fragment runs along the upper line and down the left side. It is followed by the beginning of another *ghazal*, which runs along the bottom and continues up the right side. When Mughal artists mounted the poetic fragments on this page, appearance took precedence over meaning.

The fluid and rhythmic eastern style of *nasta'liq* canonized by Sultan 'Ali Mashhadi also became the predominant style in western Iran, as artists gravitated to work in the Safavid royal scriptorium



(*kitabkhana*). Writing in 951/1544, Dust Muhammad included the names of five calligraphers employed there.⁶⁴ The first and most famous was Shah Mahmud Nishapuri, who was active in Tabriz from the late 1520s to the late 1540s.⁶⁵ Like his contemporary Mir ‘Ali Haravi, Shah Mahmud Nishapuri used *nasta’liq* for calligraphic specimens and poetic manuscripts,⁶⁶ but he used the script for other projects as well. The most unusual is a large single-volume copy of the Koran (Figure 10.7), completed, according to its colophon, on Wednesday 14 Muharram 945/12 June 1538.⁶⁷ Shah Mahmud was aware of the curious choice of script used for this Koran manuscript. The text ends with a lengthy encomium to ‘Ali written in Persian and specifying that the manuscript, from beginning to end, was done in *nasta’liq*. It may have been something of an experiment, and though not unique,⁶⁸ the choice of script is unusual, for *nasta’liq* was never common for Koran manuscripts.

Shah Mahmud Nishapuri laid out the opening pages like those in secular manuscripts, with text set in narrow panels elaborately illuminated in blue and gold, though the margins are decorated with blue finals rather than the figural scenes used in secular texts.⁶⁹ The *nasta’liq* script allowed Shah Mahmud to vary the rhythms, and he

Figure 10.7 Opening page of a single-volume Koran with nine lines per page finished by Shah Mahmud Nishapuri on Wednesday, 14 Muharram 945/12 June 1538.

This is a rare example of *nasta’liq* used for a Koran manuscript, perhaps because the script was usually written without vowels, and Shah Mahmud Nishapuri had to add them here. The script expands and contracts like breathing, and the hand shows crystalline control, making this one of the most spectacular Koran manuscripts ever produced.



Figure 10.7a

played up the juxtaposition of expansion and contraction alongside symmetry and balance. In the invocation to God (Figure 10.7a), for example, he centered the phrase and extended not only the usual *sin* of *bism* but also the *ya*' of *al-rahim* to create a balanced design. Long sweeping strokes contrast with tightly packed clusters.⁷⁰ Some lines end well before the margin, others encroach upon it. Dots are sometimes clustered for visual effect. Note, for example, the multiple pairs arranged in bilaterally symmetrical patterns in *lil-mutaqina* and *yuqimuna* at the beginning and end of line three on the left page. The hand is precise and shows crystalline control. Although *nasta'liq* is usually written without vowels, they are considered essential in Koran transcription, and so Shah Mahmud added them here in a lighter pen, evoking the Persian metaphor of eyelashes on the cheek of the beloved. For many, this is one of the most beautiful Koran manuscripts ever produced.

Shah Mahmud used *nasta'liq* more often to transcribe Persian poetry, and the copy of Nizami's *Khamasa* that he made at this time for Tahmasp is one of the finest examples of this script.⁷¹ He signed and dated the colophons to all five poems sequentially.⁷² In the first (Figure 10.8) and the last, he penned the epithet *al-shahi* (royal) in gold, thus showing that the manuscript was produced in the royal scriptorium.⁷³ The dates tell us that it took the calligrapher three and a half years to transcribe the nearly 400-page codex, averaging between twenty and thirty verses per day, the same number required of his Timurid predecessor Sultan 'Ali Mashhadi for each of two patrons.⁷⁴ To regularize his work, Shah Mahmud used a *mastar* to rule the large (quarter-*baghdadi* size) pages with twenty-one lines in four columns. Some pages, particularly those preceding or following an illustrated page, have alternate lines of text written on the diagonal from lower right to upper left, the opposite direction of those used by Sultan 'Ali Mashhadi (Figure 7.17).

Shah Mahmud Nishapuri used a thin and graceful *nasta'liq* that is both elegant and rhythmic. He emphasized the regular rhythm by elongating many strokes, often one above the other in succeeding lines. To balance these swinging strokes, Shah Mahmud incorporated the final *ya*' with the long backward-pointed sweeping tail that his predecessor Anisi had favored (Figure 7.18), as in the last two verses of line six. Shah Mahmud also reverted to the traditional system of pointing, with a single dot for *cha*', thus reducing the number of dots sprinkling the page.

Shah Mahmud's *nasta'liq* script is finer and smoother than that used a half-century earlier by Sultan 'Ali Mashhadi (Figure 7.17). Compare, for example, the word *guft*. In Shah Mahmud's hand (Figure 10.7a) the eye of *fa*' is usually open, whereas in Sultan 'Ali's hand, it is filled (Figure 7.17a). The seat of the *kaf/gaf* is also different: Shah Mahmud made it a straight and fairly long downstroke, whereas Sultan 'Ali had made it curved or angled and short. The long diagonal stroke of Shah Mahmud's *kaf/gaf* often intersects the vertical ruling,



Figure 10.8a

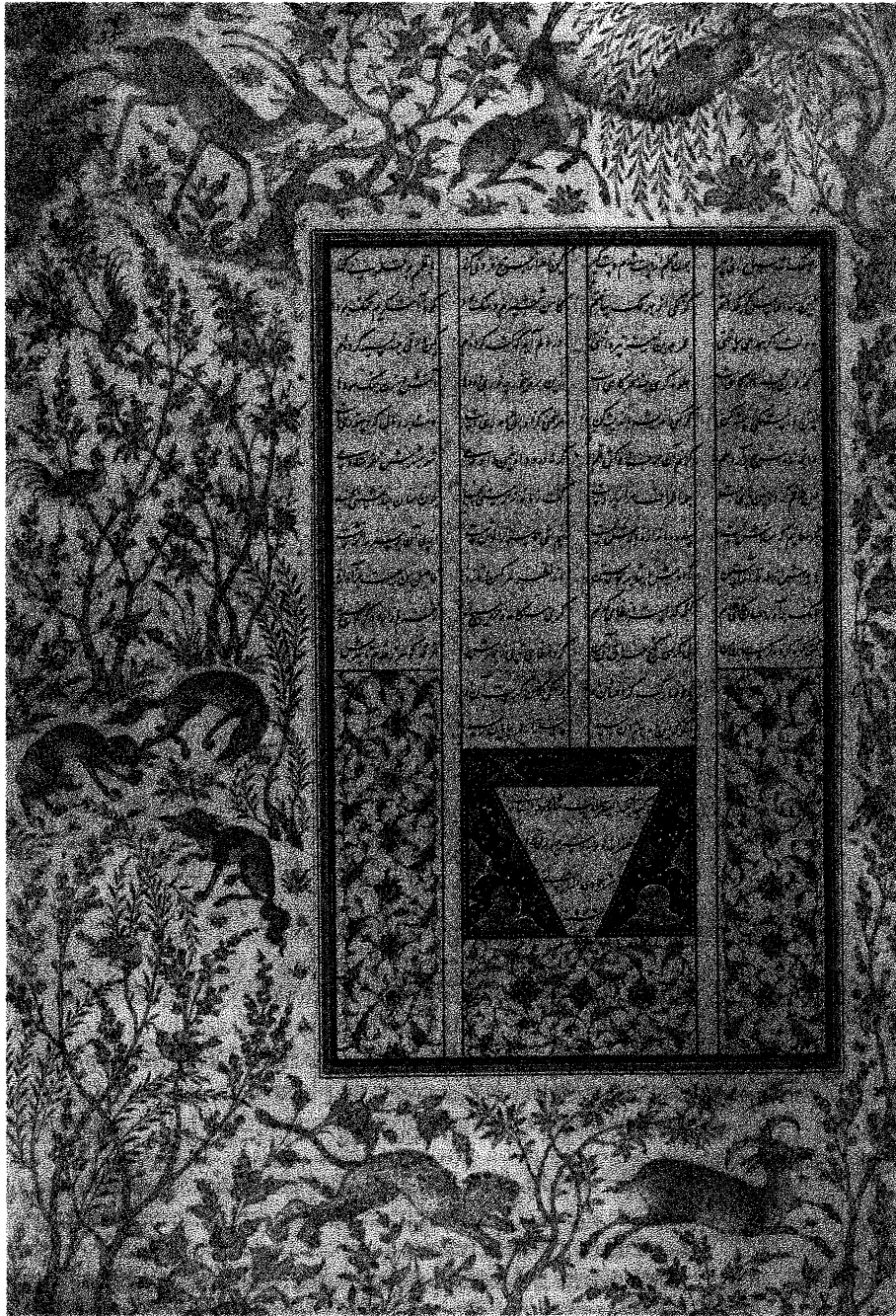


Figure 10.8 Final page with the colophon from a copy of Nizami's poem *Makhzan al-Asrar* signed by Shah Mahmud al-shahi and dated 1 Jumada II 946/14 October 1539 from the copy of Nizami's *Khamasa* made for Shah Tahmasp.

This copy of Nizami's *Khamasa* is one of the finest manuscripts prepared for Shah Tahmasp and shows the quality of Shah Mahmud's *nasta'liq* hand. The most famous calligrapher in the royal studio, he proudly signed his work *al-shahi* in gold, a visual pun on his epithet *zarin qalam* (golden pen).

emphasizing the diagonal slope of the writing. Shah Mahmud also wrote each individual word on a steeper diagonal slope than his predecessor had. These small but subtle improvements make Shah Mahmud's *nasta'liq* more fluid. It is also better planned, for there is far less piling up of words at the end of the hemistich. Along with more regular rulings that set off four equally spaced blocks of text,⁷⁵ Shah Mahmud's copy of the *Khamsa* also has superb illumination, not only for the colophon pages (Figure 10.8), but also in the opening pages of text.⁷⁶ Even without the wonderful illustrations, text and illumination make this manuscript one of the finest produced for the Safavids.

Soon after Shah Mahmud had finished transcribing this magnificent copy of Nizami's *Khamsa*, Tahmasp seems to have lost interest in the arts and dismissed his studio,⁷⁷ but the style of *nasta'liq* established in the early sixteenth century set the standard for succeeding generations. This is evident from the most important project of the mid-sixteenth century: a de luxe copy of Jami's *Haft Awrang* (Seven Thrones) made for the shah's nephew, Bahram Mirza, governor of Khurasan and a bibliophile who reportedly had a private library of three thousand volumes.⁷⁸ The text is a collection of seven *mathnavis* (long poems in rhyming couplets) composed by the Timurid mystical poet, Jami (1414–92). This copy was something of a mail-order project, transcribed over nine years (963–72/1556–65) in three different cities (Mashhad, Qazvin, and Herat) by at least five calligraphers (Shah Mahmud Nishapuri, Rustam 'Ali, Muhibb 'Ali, Malik al-Daylami, and Ayshi ibn Ishrati). Two of the calligraphers – Shah Mahmud Nishapuri and Rustam 'Ali – had worked for Tahmasp's royal studio at Tabriz, while the other three belonged to the next generation, but all wrote in the same style of fine *nasta'liq* such that the individual poems could be assembled into one coherent volume.⁷⁹ All the calligraphers were interested in variety and visual excitement, not only setting verses on the diagonal but also switching the direction of successive lines to produce a zig-zag effect. In many cases, this was done to stretch out the text so that a painting or colophon fell in an appropriate place, but sometimes the zig-zag pattern was inserted to enliven a long section of plain text, as on folio 20a. In short, the art of the calligraphic specimen (*qit'a*) has overtaken the art of the book.

To further decorate the text, the long headings in the rubrics were often added in different colors of ink, alternating red, blue, orange, and green. The text was then enhanced with lavish illumination, including gold contour panels, polychrome column dividers, and margins on different colors of paper which are themselves illuminated in gold with scroll, cloud, and lattice designs. The writing, which had achieved a canonical form, was being subsumed by the decoration, which could expand in complexity and richness almost infinitely.

The dissemination of a style by copying and the collectability of a master's hand are epitomized in the work of the third master of

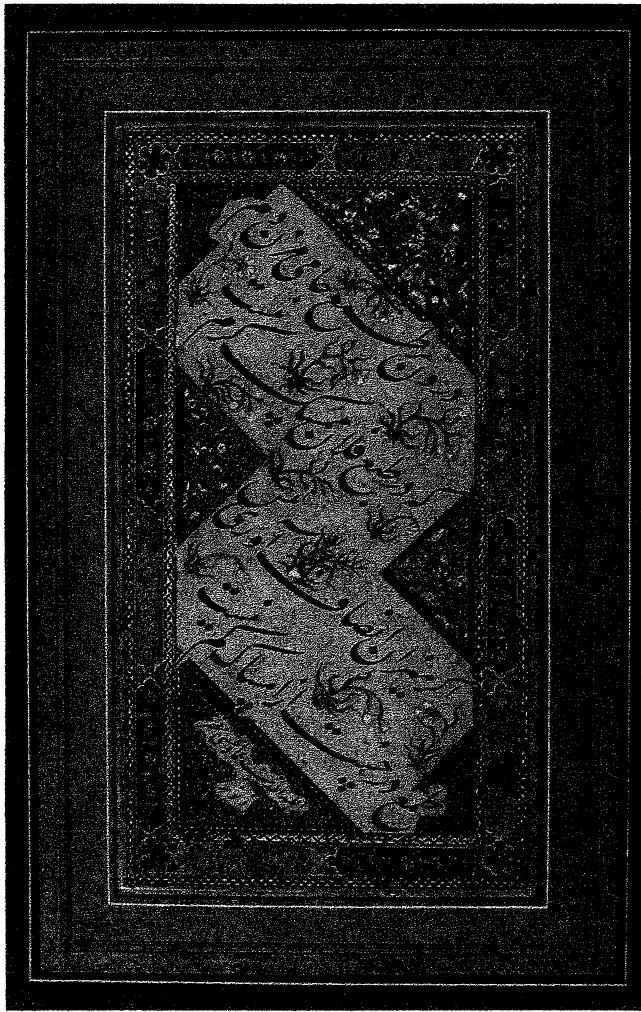


Figure 10.9 Quatrain (*rubāʿi*) penned by ʿImad al-Hasani, known as Mir ʿImad (d. 1615), illuminated by the Ottoman illuminator Salih in 1198/1785, and mounted in an album.

Mir ʿImad's *nastaʿliq* script was considered the apogee of the style. His flowing strokes are marked by extreme contrast between thick and thin and swooping endings that broaden at the tip. His work was collected assiduously, and often later illuminated and mounted into sumptuous albums like this one made for the Ottomans, who used his calligraphic specimens as models (Figure 11.18).

nastaʿliq, ʿImad al-Mulk Muhammad ibn Husayn Muhammad Shafiʿal-Hasani al-Sayfi al-Qazvini (c. 1554–1615), usually known as Mir ʿImad.⁸⁰ He became the most important practitioner of the art at the court of the Safavid shah ʿAbbas and the chief rival of ʿAli Riza ʿAbbasi, designer of inscriptions (Figure 10.2). Mir ʿImad's work was immensely popular both during his lifetime and after his death, and his calligraphic specimens, like those of his predecessor Mir ʿAli Haravi, were collected assiduously. Many were mounted in sumptuous albums. The most famous is the so-called St Petersburg album, which was compiled in 1734–5 with facing spreads of calligraphies by Mir ʿImad alternating with spreads of Persian and Mughal paintings dating from the sixteenth to the eighteenth century.⁸¹ Another in Istanbul University Library compiled for the Ottomans has calligraphic specimens by several masters of *nastaʿliq*, of which the finest like this one (Figure 10.9) are signed by Mir ʿImad.⁸²



Figure 10.10 Practice sheet with the *basmala*, the *Fatiha*, and a Persian quatrain signed by 'Imad al-Hasani, known as Mir 'Imad, at Qazvin, and datable before 1600.

These practice sheets were known in Persian as *siyah mashq* (black practice) because the calligrapher filled the sheet with calligraphic strokes in black ink. This one was signed by Mir 'Imad at the second Safavid capital, Qazvin. He achieved its flowing lines by repeating shapes in practice sheets like these, which soon became collectors' items. Like many, it was later embellished with cloud bands with crinkled edges set in reserve against a gold ground.

Mir 'Imad is most famous for his quatrains penned in the diagonal format canonized by Mir 'Ali Haravi (Figure 10.6), but with a bolder, heavier line and an exaggerated contrast between thick and thin strokes. Compare, for example, the thick heads and thin bottom strokes of *dal* and *mim*, the first and last letters of the opening line. Swooping strokes widen at the end, both in connectors (as in the first line) and in final *kaf* (line two), *fa'* (line three) and *ta'* (line four). These provide the steps that lead the eye down the page.

Calligraphers achieved such flowing lines by repeated practice. In addition to finished compositions that were regularly mounted in albums, they prepared calligraphic exercises repeating the same letter

or group of letters. These practice sheets, which often survive separately, are known in Persian as *siyah mashq* (black exercise or practice).⁸³ This one by Mir 'Imad (Figure 10.10) contains the basmala, or invocation to God, in the top center, followed by the Fatiha, the opening *sura* of the Koran.⁸⁴ Written across this and upside down is a Persian quatrain about love, followed by the signature of the calligrapher 'Imad al-Hasani at the capital (*dar al-saltanat*) Qazvin. Mir 'Imad moved from Qazvin to join 'Abbas' scriptorium in the new capital at Isfahan c. 1600, so this example can be attributed to the preceding years.⁸⁵

In this practice sheet, Mir 'Imad worked on repeating shapes of *nasta'liq*. In the basmala (Figure 10.10a), for example, he extended the *sin* in *bism* and the connector between *ha'* and *ya'* in *al-rahim* to create a balanced pattern, the same layout that Shah Mahmud Nishapuri had used in his *nasta'liq* copy of the Koran. Mir 'Imad also worked on the shape of *nun*, repeating the letter several times with minor variations in the word *alladhina* in the penultimate line (Figure 10.10b) until he achieved a perfect form. Similarly, he repeated the initial penstroke *qaz* and the final penstroke *in* in *qazvin* at the end of his signature like a coda around the medial *waw* (Figure 10.10c). Such repetitive strokes formed the backbone for calligraphic specimens, in which a calligrapher like Mir 'Imad could repeat the same shape seemingly effortlessly.

Calligraphers may have made such practice sheets for centuries to improve their skills,⁸⁶ but during this period they recognized their value as collectibles and produced finely crafted examples like this one that shows no trace of smudges or ink spills. The production of such finished works had much to do with the art market, as the uncertain nature of royal patronage meant that artists had to devise alternative methods of earning a living. Mir 'Imad, for example, moved from court to court in search of patronage. These calligraphic exercises can thus be seen as the verbal equivalent of the highly personal drawings that proliferated at this time in the hands of such masters as Riza and especially his pupil Mu'in.⁸⁷ Both practice sheets and drawings exhibit the same interest in the methods of producing a work of art, an interest articulated in the treatises on calligraphy that appear at this time.

In addition to manuscripts, quatrains, and calligraphic exercises, calligraphers in the seventeenth-century Safavid chancery also used *nasta'liq* for diplomatic correspondence, as in a letter (Figure 10.11) sent by 'Abbas to King Charles I of England (r. 1625–49).⁸⁸ One of a group of letters about commercial affairs exchanged between the two courts in the 1610s and 1620s, it testifies to Iran's prominent role in the silk trade with Europe.⁸⁹ A seal on the back identifies the sender as the servant of the king of holiness, 'Abbas (*banda-yi shah-i vilayat 'abbas*). The top line identifies the recipient as Charles (*charish*), king of the Franks (*farmanfarma-yi frank*). The text begins by showering Charles with praise and diplomatic phrases of goodwill in flowery



Figure 10.10a



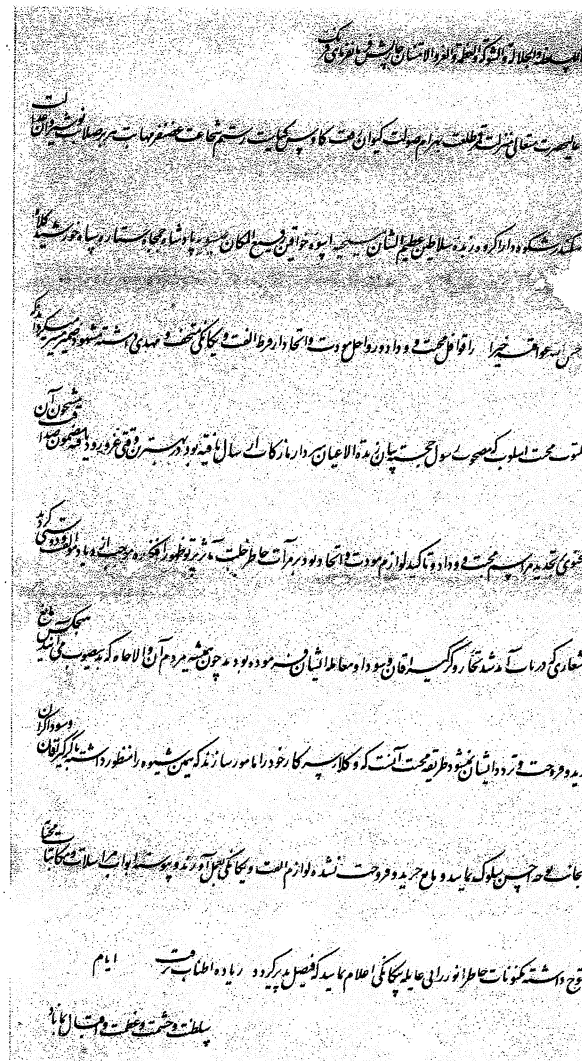
Figure 10.10b



Figure 10.10c

Figure 10.11 Letter with eleven lines sent by Shah 'Abbas to King Charles I of England, c. 1625.

This letter requests that the Persian silk merchants in England be granted the same favorable conditions that English merchants received in Iran. The lines are widely spaced to underscore the status of the sender. Divine names are emphasized in gold, and the terms friendship and union repeated several times.



Persian. The calligrapher used gold ink to highlight divine names. These include not only *allah* (God) at the beginning of line four, but also *masihiya* (Christian) and *ulwiyat* (sublimity) in line three. To add visual distinction to these last two, the unsigned calligrapher stretched out the hanging stroke of the *sin* and the connector between *ya'* and *waw*. The main purpose of the letter was to ensure that silk merchants from Persia, when conducting business in England, would be granted the same favorable treatment that English merchants received in Persia. The words *ulfat* (friendship) and *yaganagi* (union) are repeated several times, along with *dusti* (friendship). The letter closes with expressions of goodwill and good fortune.

To emphasize the importance of the document, the calligrapher spaced the lines widely. This was a longstanding tradition: according

to Muhammad Mayhani's twelfth-century scribal manual known as *Dastur-i Dabiri*, the space between lines was related to the standing (*qadr*) of the sender: the more important the sender, the greater the distance between the lines.⁹⁰ In this royal document, like its Ilkhanid counterpart (Figure 7.13), the space between lines measures three times the height of a single line of script. So that nothing could be added, the calligrapher again piled up the last few words at the extreme left, but also aligned the lines of text at the right. Compared to the earlier decree (Figure 7.13), the writing in this one is much smoother, flatter, and more even. The words are posed solidly on a flat baseline. This horizontality contrasts with the sloping *nasta'liq* script. *Alif* and other verticals slope slightly to the right; in contrast, the stroke of *kaf*, the bowls of *ta'*, *sin*, and other extended letters, and the words themselves slope downward to the left. Dots are aligned to establish an internal rhythm, as in the short last line in which the final *ta'* of the first three nouns – *saltanat* (authority), *hashamat* (pomp), and *'azamat* (magnificence) – is stretched out to form a seat for the opening letters of the next word. Overall, the letter projects an impression of authority, subtlety, and restraint.

As well as using *nasta'liq* for new purposes, scribes and calligraphers in this period also streamlined the script so that it evolved into a new form. Just as calligraphers had adapted the original or old style of *ta'liq* into a new form sometimes called *shikasti-yi ta'liq* (broken *ta'liq*) but more commonly just *ta'liq*, so too the need to write faster led calligraphers to develop a new style of *nasta'liq* in which letters and words that should be detached are sometimes joined. This new and streamlined style of *nasta'liq*, which came to the fore by the seventeenth century, became known as *shikasta-yi nasta'liq* (broken *nasta'liq*), usually shortened to simply *shikasta*.⁹¹

In *shikasta*, calligraphers are allowed to make more unauthorized connections than in regular *nasta'liq*, joining *alif*, *dal/dhal*, *ra'/za'* *zha'*, and *waw* to the next letter.⁹² These unauthorized connections differentiate *shikasta* from all other scripts in one significant way. In other scripts, a non-connecting letter forces the calligrapher to end his penstroke before the end of the word. As a result, the calligrapher may need two or more penstrokes to write a single word, in addition to adding diacritics. In *shikasta*, by contrast, the calligrapher completes each word in a single penstroke. He may even write more than one word in a single penstroke, for unauthorized connections are permitted not only within a word, but even between words. Calligraphers writing *shikasta* often run the conjunction *waw* (and) or the preposition *ba* (with) to the following word, and in bureaucratic copyplate calligraphers often run two or even more independent words together in a single penstroke.

These unauthorized connections mean that calligraphers can write *shikasta* faster than any other script. Pointing is required only when absolutely essential. Vertical letters are shrunk, and the combination of extra ligatures and short verticals creates an unusually dense

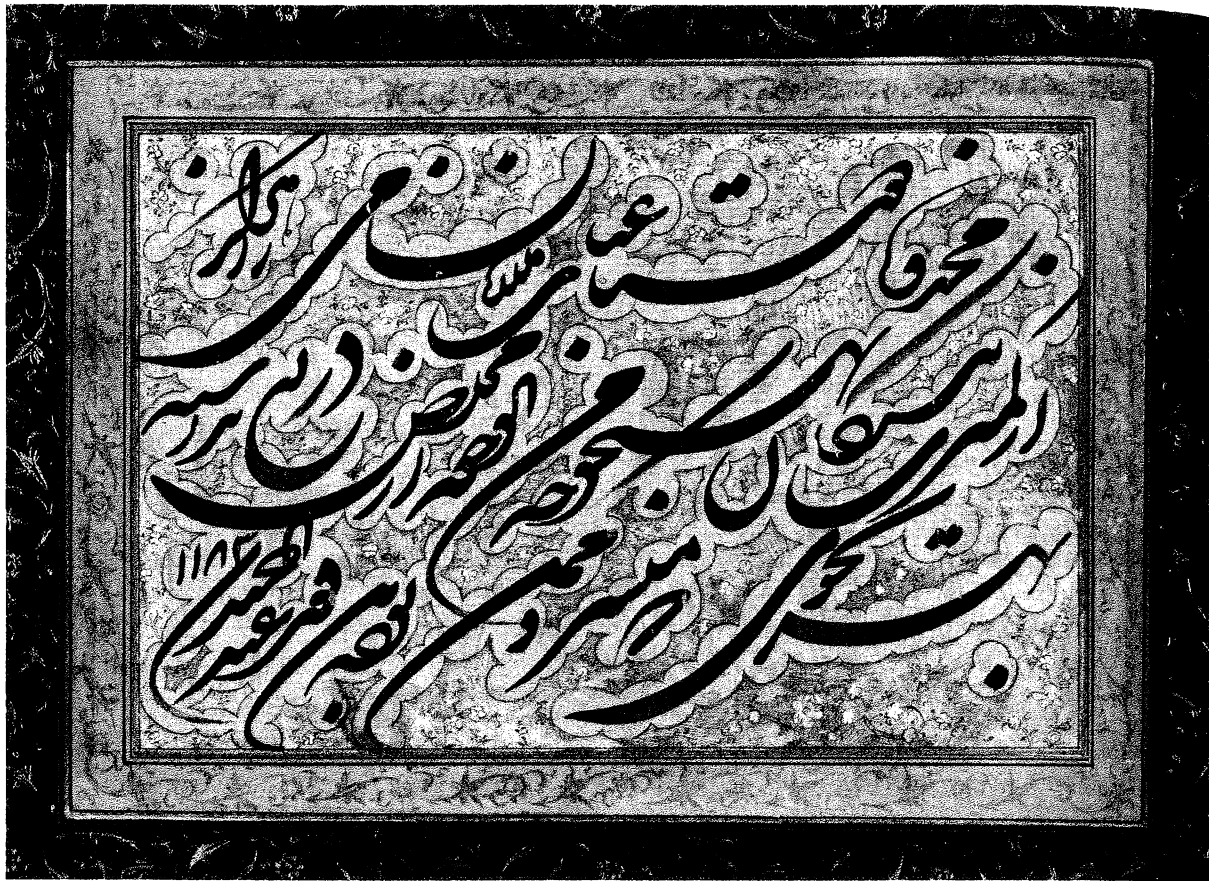


Figure 10.12 Letter signed by
'Abd al-Majid Taliqani in
1183/1769–70.

The swooping *shikasta* script is said to have reached its apogee under Darvish 'Abd al-Majid Taliqani. This letter pleading for money is distinguished by swooping curves that lead the eye across the page. These sweeping strokes are bisected by slashing strokes that serve as the cross-bars of *kaf* and *gaf*.

script. To enhance speed, when writing *shikasta*, calligraphers smooth out the bumps, teeth, and curves and elongate some letters, mainly those that in *nasta'liq* curve against the flow of the pen. For example, in *shikasta* the final flourishes of *sin*, *sad*, *qaf*, and *nun* can be stretched out, as distinct from the semi-circular forms typical of *naskh* and *nasta'liq*. In *shikasta*, final *nun* and *ya'* may also curve back under the word. In addition, the diagonal crossbars of *kaf/gaf* are longer in *shikasta* than in *nasta'liq* and not always attached to the seat of the letter. This combination of densely packed letters and long flowing extenders creates a stop-and-go impression which underscores the script's name 'broken.'

Other conventions already used in *nasta'liq* to enhance the smooth flow of the line across the page are continued and even exaggerated in *shikasta*. Dots, for example, may be displaced or clustered, so that three dots set in a pile may not indicate a *shin*, but rather a combination of *nun* and adjacent *ta'*. Good calligraphers often distributed these piles of dots across the page, somewhat like a professional baker evenly sprinkling poppy seeds atop a cake. As in *nasta'liq*, the text in *shikasta* is often surrounded by panels in reserve or cloud bands,

which set off the script from the background and enhance its graceful and fluid aspect. In most cases, the size of the letters and the consequent legibility is subordinated to the flow of the pen.

Shikasta achieved a definitive style over the course of the seventeenth and eighteenth centuries. One of the early pioneers was Muhammad Shafi' Haravi Husayni known as Shafi'a (d. 1670–1), and hence the script was sometimes called *shafi'a'i* or *shifi'a*.⁹³ Another was his contemporary Murtadaquli Khan Shamlu (d. 1688–9), whose work shows a cramped script containing letter combinations that were later dropped.⁹⁴ Calligraphers at this time were still working to develop a consistent canon, but had already stylized their signatures.⁹⁵

Most modern scholars consider that *shikasta* reached its peak of artistic perfection under Darvish 'Abd al-Majid Taliqani, who gave the script its distinctive form.⁹⁶ Although renowned during his life for his skill in *shikasta*, he died, aged thirty-five, in 1771 at Isfahan, a pauper, having done most of his work during the last fifteen years of his short life. He penned many different kinds of short specimens, ranging from literary works such as *ghazals* by the lyric poet Hafiz to letters and petitions, such as this one written in 1183/1769–70 pleading for money from an unnamed person (Figure 10.12) and mounted in an album in concertina form.⁹⁷

'Abd al-Majid's distinctive signature in the bottom left corner illustrates how unconnected letters are run together in *shikasta* to form patterns. The last four words (Figure 10.12a) give the calligrapher's name and the date: *faqir 'abd al-majid sana 1183* (the poor 'Abd al-Majid in the year 1183/1769–70). The adjective *faqir* is fairly recognizable, though the initial *fa'* has been enlarged to encompass the medial *qaf* and the *ya'-ra'* combination smoothed to a single sweep. Similarly, the large initial *'ayn* of *'abd* clues the reader to the next word, despite the smoothing of the final *dal*. In *al-majid*, the calligrapher connected *alif* to *lam* in a single stroke that runs right on to the loop of *mim* and again smoothed the *dal* at the end. The word *sana* (year) is written as a single flourish that serves the seat for the date, which is characteristically written in numerals.

Most notable is the streamlining of letters and words. *Ghayn* loses its head, as in *darigh*, the penultimate word of the second line. Slashing diagonals are used for the cross-stroke of *kaf/gaf*, as in *hargiz*, the word at the top left of the first line (Figure 10.12b); *kamtarin* and *bandagan*, the second and third words of the second line; and *kamin*, the center word of the last line. Final *nun* is a long sweeping stroke that ends in a right hook, as in *min*, the middle word of the second line, or *kamin*, the word just below it in the third line. *Kih* (Figure 10.12c) is reduced to the logograph of the upsidedown hook or squiggle already used in the Aqqoyunlu letter written in *shikasta-yi ta'liq* (broken *ta'liq*) (Figure 7.14).

'Abd al-Majid's aesthetic aim in composing this letter was to create a pattern of whiplash curves. Thick penstrokes contrast with hair-thin endings. Left-sweeping curves balance right-curving endings. Tight



Figure 10.12a



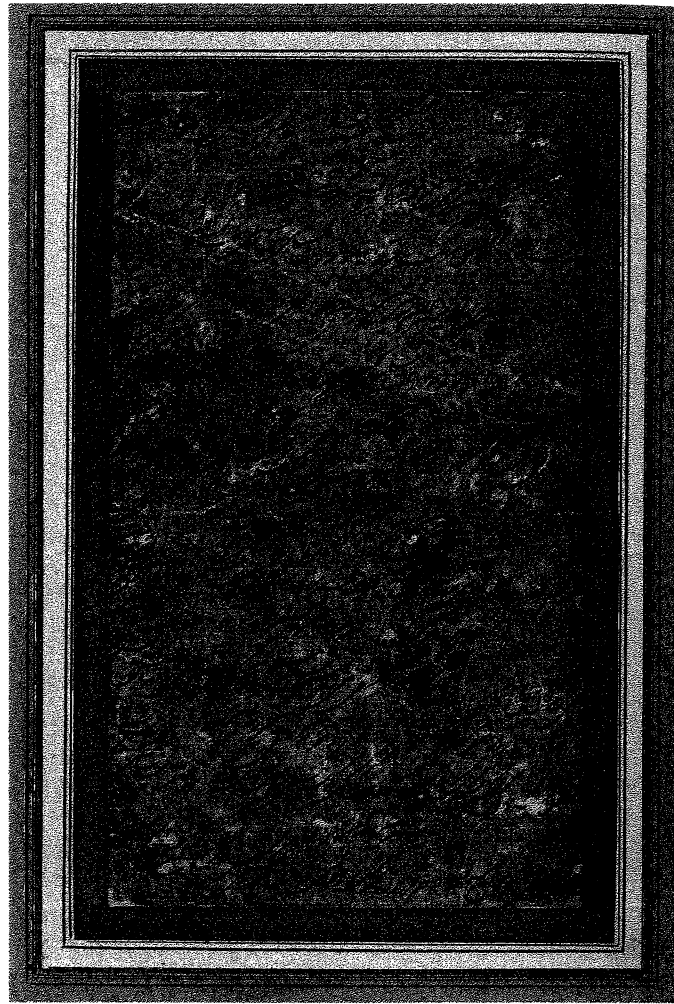
Figure 10.12b



Figure 10.12c

Figure 10.13 Folio from an album containing a plea for tax relief written by Mirza Kuchik Khan in 1210/1795–6.

This document exemplifies the flowery type of *shikasta* used in the nineteenth century. The initial plea for tax relief is written in eight lines running from top to bottom, and the record of the successful resolution of the case is written upside down in seven lines interspersed between the original lines.



control juxtaposes free flow. Lines and curves form patterns both horizontally and vertically. The reader almost feels the flow of the ink as the pen swoops across the page. This is as close as Islamic calligraphy ever gets to the aesthetic of Chinese calligraphy, in which the reader is meant to retrace the movements made by the calligrapher.

Scribes and calligraphers also used *shikasta* for longer documents, in which the sweeping curves and ornate flourishes of the script were a visual equivalent of the flowery language used in the text, and the convoluted and broken nature of this script is sometimes said to parallel the broken imagery in the contemporary style of poetry known as *sabk-i hindi*.⁹⁸ A good example (Figure 10.13) is a plea for tax relief written by Mirza Kuchik Khan on the order of Hajji Mashkur in 1210/1795–6.⁹⁹ Neither the calligrapher nor the patron was a famous figure in late eighteenth century Iran, so the document illustrates the type of fine *shikasta* used by well-to-do individuals. From the text it

is clear that the patron had entered an oral or less-refined written petition before copying this final, formal, and polished version recording that the plea was successful. The main text is written in eight longer lines, with the jubilant resolution of the case added in seven shorter lines written upside down between the original lines of text.

In keeping with standards of the time, the document begins with laudatory honorifics, directed from a pleading subordinate to a powerful superior and written in couplets at the top. The text itself begins in line two with the conjunction *kih*, reduced to its regular logograph. The petition notes that last year's taxes had been reduced, but that this morning when the officials 'Abbasquli Khan, Aslan Beg Afshar, and Mirza Muhammad Muhsin (named in the middle of line 4 after the wide space) appeared to collect taxes, they requested the earlier, higher amount. So the official Fadlallah Beg, along with the petitioner's son Mirza Musa (named at the end of line 5), has been dispatched to request that another copy of the earlier order reducing taxes be sent to the petitioner, 'Abbasquli Khan, and other subordinates. The official Aslan Beg, however, was supposed to be kept in the dark about the whole matter, for reasons, the document says, best known to the recipient, thereby hinting at behind-the-scene intrigue. Piled up at the right of the bottom line (8) is the signature of the calligrapher, described as the least of servants (*al-'abd al-aqall*), Mirza Kuchik Khan, and the date 1210, corresponding to 1795–6 (Figure 10.13a). The final line of the resolution, written upside down at the top, repeats that the document was written at the command of the honorable Hajji Maskhur. At the end of the line, the text is again signed by (*mashaqahu*) the calligrapher Mirza Kuchik Khan, and the date 1210/1795–6 (Figure 10.13b).

The document exemplifies the reductions, smoothing, and stylization typical of *shikasta*. Words are piled within the swooping strokes of previous words and stacked at the far left. Dots are arranged in neat triads, and the upper strokes of *kaf* elongated. These swooping strokes, recumbent curves, and piles of dots are distributed to form patterns and establish a regular rhythm across the page. These features are particularly noticable in set phrases such as the opening of the first line of the original text and the calligrapher's signature and date at the end of both plea (Figure 10.13a) and outcome (Figure 10.13b). In the calligrapher's name, the letters of *kuchik* are written in a single stroke, formed by eliding the *waw* to a circular *cha* and reducing the final *kaf* to a shallow bowl, with the upper strokes of the two *kafs* added above as two long parallel lines. The date is written as usual with a single sweeping stroke for *sana* (year) as the seat for the numerals 1210. The eye revels in the overall composition without having to decipher individual words, which in many cases are all but impossible to read. Legibility is subsumed by pattern.

The added frills made *shikasta* increasingly difficult to read, and despite various nineteenth-century attempts to simplify it, along with contemporary prose,¹⁰⁰ it remained the script of documents and



Figure 10.13a



Figure 10.13b

decrees, while *nasta'liq* retained its pre-eminence as the main calligraphic style. Qajar rulers were highly educated in traditional Persian literature and the arts, and a staggering quantity of beautiful books, typically written in a graceful and compact *nasta'liq* lavishly decorated with gold, ultramarine, and carmine, was produced during their rule from 1779 to 1925. Few examples, however, have been published, particularly in the West, as this period has traditionally been seen as one of stagnation and decline. Even as the arts of this period are now being reassessed, most Western surveys concentrate on figural painting, architecture, or the other arts.¹⁰¹ To some extent this situation is being redressed in Iran today, where various Islamic and calligraphic centers are producing lavish facsimile studies of nineteenth-century masters such as Mirza Muhammad Riza Kalhur (1829–92).¹⁰²

Known as *fakhr al-kuttab* (prince of calligraphers), Kalhur was the most important calligrapher of the nineteenth century, credited with reviving the style of *nasta'liq* calligraphy developed by Mir 'Imad. Mir 'Imad's successors in the seventeenth and early eighteenth centuries had developed a more elongated style of *nasta'liq* with wider spaces between words, but Kalhur reintroduced the more compact tradition, writing words on a smaller scale in a single motion, shortening the strokes and connectors, and piling words together to create a thicker skeleton. He also maximized the contrast between thick strokes made with the full width of the nib and thinner terminals, which are nonetheless written firmly. In these ways, he is said to have created a new harmony between black ink and white paper. To write faster, he omitted dots and curved the serif or hook at the beginning of letters.

Kalhur is also credited with developing a new method of teaching calligraphy. In the traditional system, students learned by copying, repeating first individual letters of the alphabet and then specimens by the master, until they finally qualified to receive a license (*'ijaza*) to teach. Kalhur, who did not like teaching, developed his own methods to maintain student interest and encourage their aesthetic awareness. First, he calligraphed phrases and verses that he deemed suitable for the students' ability at the top of the page. Then, he urged students to copy that phrase underneath his model, at the same time practicing the shapes of individual letters or words on the page. Kalhur is also said to have revised the method of preparing the reed pen.¹⁰³

Kalhur devoted most of his life to practicing calligraphy, but had few students. The most famous was Mirza Zayn al-'Abidin Sharifi Qazvini, known as the king of calligraphers (*malik al-khattatin*).¹⁰⁴ Kalhur also destroyed most of his own work as unsatisfactory, and though he calligraphed a few fine manuscripts,¹⁰⁵ he is best known for his black practice compositions (*siyah mashq*) in which he practiced and perfected his style of penmanship. The collection of eighty-three examples recently published by the Arts Center in Tehran

ranges from precise copies of quatrains in the style of Mir 'Imad to neat pages from literary works in Kalhur's own compact *nasta'liq* to almost abstract compositions, in which Kalhur covered virtually the entire surface with black ink.¹⁰⁶

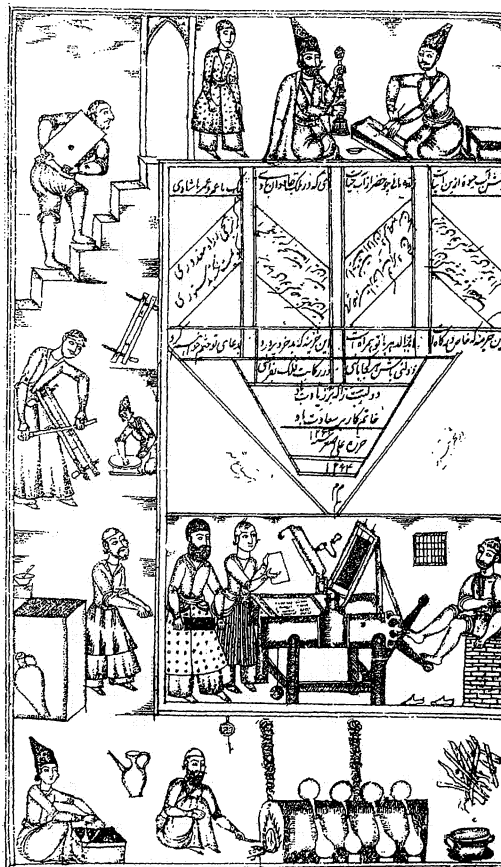
In the nineteenth century, *nasta'liq* was also adopted in Iran for lithographed books. The process of lithography, invented by Alois Senefelder in Germany at the end of the eighteenth century, entails writing or drawing on a specially prepared stone surface, using a greasy crayon or special ink.¹⁰⁷ The stone is then etched, leaving the design in relief, from which an unlimited number of prints can be taken. Lithography produces an image in mirror reverse, and so for longer texts calligraphers had to write on transfer paper and then transfer the designs to the stone. Knowledge of lithography reached Iran by the 1840s, and the makers of books there quickly recognized it as the easiest, cheapest, and most effective way of disseminating texts, especially as there had long been opposition to the printing press for both religious and practical reasons. This process allowed calligraphers to use their finest scripts, which were traditionally considered more appropriate than typeface for transcribing the holy Koran and other sacred texts. Lithography also had the advantage that the book press was not required to invest in the very large type font required to print Arabic script and the stones could be reused until they broke.

From the 1840s onwards many lithographed editions of the classics, popular fiction, and translations from Western languages were printed at Tabriz and Tehran.¹⁰⁸ One example is a copy of Nizami's *Khamsa* (Figure 10.14) transcribed by 'Ali Asghar Tafrishi and printed at the establishment (*sin'at-kari*) of his Excellency Muhammad Riza at Tabriz in 1264/1847–8. The copyist, who was active over two decades from 1846 to 1868, also calligraphed an edition of the collected works of Sa'di printed at Tehran in 1285/1868–9.¹⁰⁹ He hailed from Tafrish, the region between Avah and Qum in Jibal province, and was known as the 'little' 'Ali from Tafrish to distinguish him from his predecessor 'Ali Akbar Tafrishi ('big' 'Ali from Tafrish; d. 1829–30) who had worked at the court of Fath 'Ali Shah, earning the epithet Scribe of the Sultan (*katib al-sultan*).¹¹⁰

'Ali Asghar transcribed the large volume of Nizami's *Khamsa* using a legible and clear *nasta'liq*. Each of the 330 pages has a central written area with twenty-three lines of *nasta'liq* written in four columns. In virtually all cases the central written area is surrounded by a marginal text with another forty-four lines of *nasta'liq* written diagonally in two columns. Such a marginal text, already common in manuscripts written in Shiraz in the late fourteenth century, was very popular in Qajar manuscripts as well.¹¹¹ The diagonal arrangement left space for triangular thumbpieces half down the outside margin, and the ones in this book are filled with an astonishing variety of drawings, ranging from demons and signs of the zodiac to plants and flowers. On two pages the marginal text is replaced with

Figure 10.14 Colophon page to the *Haft Paykar* from a lithographed copy of Nizami's *Khamasa* transcribed by 'Ali Asghar Tafrishi, illustrated by 'Ali Quli Khuyyi, and printed at Tabriz in 1264/1847–8.

'Ali Asghar Tafrishi used a compact, well-formed *nasta'liq* to pen the lithographed edition of Nizami's classic poem. On many pages the margin is filled with additional lines of text written on the diagonal, but the colophon page contains marginal illustrations by 'Ali Quli Khuyyi showing the various stages of the lithographic process.



drawings of birds and flowers like those found on contemporary lacquered mirror-cases and pen boxes.

In addition to the marginal decoration, the book has thirty-eight illustrations by 'Ali Quli Khuyyi. The leading and most prolific illustrator of lithographed books printed during the first decade of production in Iran (1847–57), he worked in the traditional technique of line-drawing, which was later replaced by a style incorporating European techniques such as modeling. Most of 'Ali Quli's illustrations depict traditional subjects found in earlier illustrated manuscripts, such as Bahram Gur in the seven pavilions, but the space surrounding the curiously-shaped colophon to the *Haft Paykar* (Figure 10.14) is filled with a composite drawing showing various stages of the lithographic process. At the bottom workers prepare the special ink; at the left other workers smoothe the stone, and at the top the calligrapher inscribes the stone under the watchful eye of the patron, who is smoking a waterpipe. The rectangular illustration beneath the triangular colophon shows the press in operation, with a barefoot worker (his slippers carefully placed on the floor next to him)

moving the pedals to set the machine in motion, while assistants place sheets of paper under the plate. Such a process continued to be used for printing books in Iran well into the twentieth century.

Pictorial writing

In addition to elaborating the traditional scripts, both round and hanging, calligraphers in the later period in Iran also developed other techniques of integrating these scripts with pictures in what can be called pictorial writing. Most of the techniques had existed before the age of empires, but they became particularly widespread during this period and the results often blur the distinction between calligraphy and painting.¹¹² These compositions were not part of the arts of the book; rather, like *qit'a*, they were calligraphic specimens meant to be mounted separately. They were made for a variety of tastes and pocketbooks, from the courtiers to sufis, as both individual compositions and popular designs that could be reproduced for a wider audience. In addition to their immediate visual impact, they often contain riddles and puns, both verbal and visual and sometimes even a combination of the two.

One technique was zoomorphic calligraphy. Known from at least since the fifteenth century (see chapter 7), zoomorphic compositions became particularly popular in Iran during this period, as calligraphers skillfully shaped words and phrases into the form of birds, animals, and human faces. In order to be readable, calligraphers chose texts that were, by necessity, well known, such as the basmala; sacred names like God, Muhammad, 'Ali, Hasan and Husayn; pious invocations; and short prayers. They could be written in any script or combinations of scripts. Deciphering these pictures was a sort of game, like a crossword puzzle today, as the shape of the image was often a visual pun on the text it contained.

One of the most stunning examples is the splendid figure of a lion done in gold *thuluth* letters set against a brilliant blue ground decorated with a delicate arabesque scroll punctuated with red, white, and green flowers (Figure 10.15). The composition has been cut-out, pasted on a panel of pink card, and incorporated in an album in Istanbul.¹¹³ The text contains the famous prayer to 'Ali known as the Nad 'Ali after the first words of the opening line (*nad 'aliyyan*):

Call upon 'Ali, revealer of miracles
 You will find him a comfort to you in crisis
 Every care and every sorrow will pass
 Through your companionship, O 'Ali, O 'Ali, O 'Ali.

The calligrapher cleverly arranged the text to fit the lion shape, beginning with the lion's ear and continuing clockwise around its body.¹¹⁴ The tail, for example, is outlined in a gold border representing the sweeping tail of the final *ya* in the 'Ali that begins at the top of the

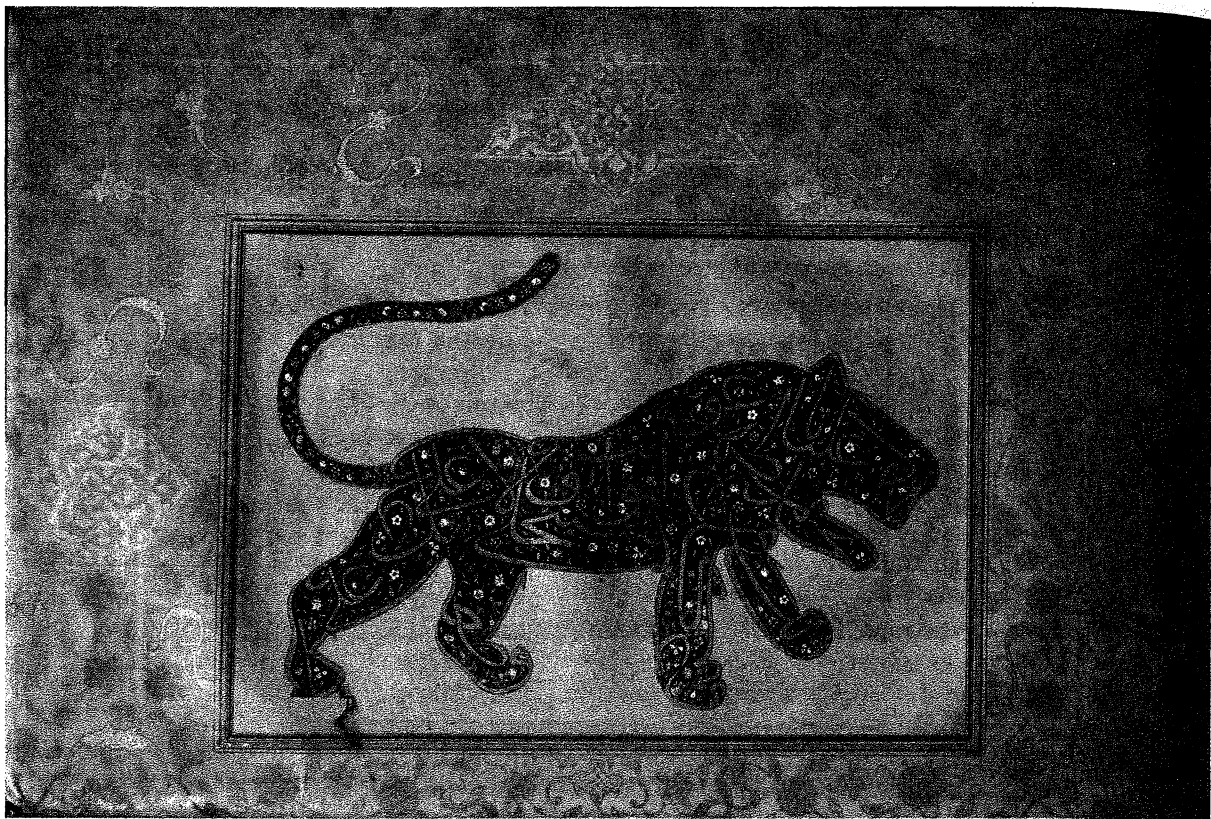


Figure 10.15 Page from an album with a cut-out prayer to 'Ali in the shape of a lion and signed by 'Ali.

One of most famous example of zoomorphic calligraphy, this composition in gold and polychrome on a blue ground has been cut-out, pasted to a panel of pink card, and mounted in the Shah Mahmud Nishapuri Album. Penned by the Safavid master Mir 'Ali Haravi in the mid-sixteenth century, it contains the famous poem known as Nad 'Ali, invoking the aid of the Prophet's son-in-law 'Ali. The lion shape is a rebus, for 'Ali is commonly known as the lion of God.

lion's back leg. The lion's back is composed of four identical strokes representing different texts. The upper one is the last syllable of 'awnan and the others the *ya* (O) invoking 'Ali's name. The lion shape is a rebus, for 'Ali was often known as the Lion of God (*haydar allah*).

The calligraphic lion can be assigned to early sixteenth century Iran. The Nad 'Ali prayer appears on metalwares made in Herat in the opening decades of the sixteenth century and on contemporary coins struck in the name of Shah Isma'il.¹¹⁵ The prayer was popular with mystics who saw 'Ali as the original shaykh and *wali* (friend) of all Sufis, and its frequent use in Safavid times may be due to the increased power of the Sufi shaykhs of Ardabil. Like many calligraphic specimens, this one is signed at the end of the text along the back legs of the lion *qata'ahu 'ali katib* ('Ali the scribe cut it out).¹¹⁶ The signature is something of a pun, as the word 'Ali must be read twice, once in the invocation 'O 'Ali' and again as the middle word of the signature. The signature probably refers to Mir 'Ali Haravi. He was a master of puzzles, and the form of the word 'ali with a long tail of *ya* extending backwards under the word is typical of his signatures (e.g., Figures 2.3 and 10.6a). His calligraphic specimens (*qit'a*) were often collected in albums like this one, which contains other works signed by him.¹¹⁷

This lion is one of the finest examples of zoomorphic calligraphy, done in expensive pigments such as gold and lapis lazuli. It is clearly the work of a court calligrapher, like the example of the basmala in the form of the bird penned in Gilan (the province south of the Caspian) by Ibn Hajji Muhammad 'Ali of Isfahan and presented to the Safavid prince Mahmud Mirza, son of Shah Isma'il.¹¹⁸ Other examples are more modest and reflect folk piety. They became particularly popular with Bektashi dervishes in Anatolia (see Chapter 11) and also in India (see Chapter 12).

Such zoomorphic compositions were used not only by Muslims, but also by other Persian-speakers in the area. The well-known design of a cock in the Harvard University Art Museums, for example, contains the name of Baha'allah, founder of the Bahai faith.¹¹⁹ In its left claw, the cock grasps an open book whose two pages are inscribed in *shikasta* with a long Arabic prayer by Baha'allah addressed to a suffering adherent named Zia and advising him to be patient. A cartouche at the lower left bears the signature of the calligrapher, Mishkin Qalam, and the date, 1305/1887–8. Mishkin Qalam, whose name literally means amber-scented pen, was the most famous Bahai calligrapher. He may have been in the service of the Bab, who at that time was living in exile near Acre in Ottoman-controlled Palestine. The finely drawn cock served as something of an emblem (*tughra*) or letterhead, as the text in *shikasta* could be changed to suit the occasion. It thus represents the finest of calligraphy in service to religious promulgation.

A second form of pictorial writing that became popular in the age of empires was micrography, the technique of using words written in a small script to form an image. It had been used since medieval times, in both Arabic and Hebrew manuscripts.¹²⁰ The earliest examples form geometric shapes and objects, but in this period calligraphers went one step further and arranged the words written in the tiny *ghubar* (dust) script to spell out a larger word or phrase. They often transcribed these texts on long (up to five meters) scrolls, which were unrolled and read aloud, and thus achieving the maximum juxtaposition of small script and large format. By reading the inscription written in the larger script, the reader is said to have transmitted the hidden text in *ghubar*, written in the letters themselves and sometimes in the frame around the letters. In this way the writing enhanced the apotropaic nature of the texts. These plays of words-on-words can be considered the visual equivalent of the riddles (*mu'amma*) popular with contemporary poets and *littérateurs*.

These scrolls were made in a variety of forms and formats to suit a range of tastes. One in the Gulistan Library, for example, is said to contain the entire text of the Koran written in a tiny version of *naskh*.¹²¹ In one section (Figure 10.16), the words written in tiny letters are arranged to spell out a variant form of the profession of faith, 'God, there is no god but He' (*allah la ilah ila huwa*) transcribed in *thuluth* letters. By uttering pious phrases such as this one, the



Figure 10.16 Detail of a scroll with the entire text of the Koran written in the tiny naskh script arranged to form a rug design with a variant of the profession of faith written in thuluth in the center.

The unidentified calligrapher transcribed the text of the entire Koran on this long scroll, arranging the words on this section to spell out the phrase 'God, there is no god but He.' By uttering this phrase, the reader may be said to have read the entire text of the Koran. This phrase also recalls the opening of the call-to-prayer, and the calligrapher underscored the relationship by setting the pious phrase in a cartouche reminiscent of a prayer rug, arranging the text at the left end in the shape of a large scalloped niche like a mihrab.

reader may be said to have read the entire text of the Koran. The phrase also recalls the opening words of the call-to-prayer: 'God is Great; I testify that there is no god but God.' To underscore the relationship of the text to prayer, the calligrapher has set the phrase in a cartouche arrangement recalling a prayer rug, with the larger scalloped niche at the left side imitating the shape of a mihrab and indicating the direction of prayer. In this way, the calligrapher has created both a verbal and a visual pun. On other examples the large texts, usually written in *thuluth* characters, but occasionally in reserve in *nasta'liq*,¹²² spell out prayers¹²³ or common Koranic verses that were considered apotropaic.¹²⁴ Few of these scrolls are dated, but most surviving examples can be attributed to the eighteenth or nineteenth century. This scroll, for example, has the seal of the Qajar ruler Nasir al-Din Shah (r. 1848–96) and belonged to the royal collection. Others were made for more popular tastes.¹²⁵

In a third and related technique known as *gulzar* (literally, rose garden or full of flowers), calligraphers replaced the tiny words used in micrography to decorate a large phrase with flowers. The technique was used in Iran at least since the early sixteenth century. One of the first known examples is a calligraphic specimen with pious phrases penned by Zayn al-Din Mahmud (Figure 10.17).¹²⁶ The calligrapher had an impressive pedigree: a student of Sultan 'Ali Mashhadi, he was, in turn, the teacher of Mir 'Ali Haravi.¹²⁷ This is a complicated exercise with two related sentences in *thuluth*. The one in blue outlined in red is a paraphrase of a well-known Koranic phrase, found most closely in 18:58, saying that God is the most forgiving, full of mercy (*huwa al-ghafur dhu'l-rahmat*). The phrase in black outlined in white is a response: I put my trust in the forgiveness of the



Protector (*tawakkaltu bi'l-maghfirat al-muhayman*). To arrange the two phrases, the calligrapher has ingeniously overlapped and intertwined individual letters that occur in both phrases, such as the *ghayn* and *fa'* of *al-ghafur* and *bi'l-maghfirat*. The *alifs* pierce the eyes of other letters, and the round *mim* and *ha'* of *al-muhayman* are overlapped to form a knot (Figure 10.17a). The intertwining of the letters drives home the interconnection of the texts.

The composition is signed in the lower right in *nasta'liq* script by Zayn al-Din Mahmud the gilder (*al-muzahhib*), and the composition is a *tour de force* of the illuminator's art. The surface of the paper has been covered with gold decorated with floral scrolls, and the letters themselves are sprinkled with delicate multi-color flowers. The *gulzar* technique of calligraphy seems to have developed as part of the illuminator's art.

Calligraphers soon elaborated the *gulzar* technique. It spread to other lands (see Figure 11.8 for an early example by Ahmad Karahisari c. 1550), and the motifs and methods of execution expanded. The flowers, for example, could be replaced by figural scenes done in *grisaille* (*siyah qalam*) or reserve, and from the seventeenth century, the large decorated letters were typically set against a plain or stippled ground, with the words or phrases sometimes surrounded by cloud bands, in single-page compositions that were mounted on board. The outlined script could be replaced by

Figure 10.17 Calligraphic specimen (*qit'a*) with a pious phrase written in *gulzar* script by Zayn al-Din Mahmud.

This calligraphic specimen with a pious phrases about God the merciful and forgiving is signed in the lower right by Zayn al-Din, pupil of Sultan 'Ali and teacher of Mir 'Ali. It is one of the earliest known examples of the technique known a *gulzar* (literally, flower garden), in which letters are filled with flowers. The script became increasingly popular in later centuries, as the technique was expanded to *grisaille* and motifs included birds and animals.



Figure 10.17a

dots, as in an album with the Fatiha (Sura 1) penned by Muhammad Kazim in 1217/1802–3.¹²⁸ The decoration consists mainly of flowers, but also includes the odd bird or animal. Plants and animals were thus not considered inappropriate to the Koranic revelation, and when penning poetic texts, calligraphers even added landscape scenes to the repertory.¹²⁹

Artists in the later middle period further blurred the relationship between calligraphy and painting by penning inscriptions in a large and elegant *nasta'liq* that was then set within an elaborately painted background. The master of this fourth technique, virtually the opposite of *gulzar*, was Isma'il Jalayir (d. c. 1870).¹³⁰ Son of the calligrapher Hajji Muhammad Zaman Khan, Isma'il attended the Dar al-Funun, the polytechnic institute founded in Tehran under the prime minister Amir Kabir, and studied calligraphy with Mirza Ghulam Riza. Isma'il became a leading artist at the court of Nasir al-Din Shah, painting scenes of harem ladies and dervishes as well as religious subjects. He worked in many media and techniques, from oil and lacquer to grisaille, favoring Edenic landscapes, often inspired by European prints and engravings.

This large sheet by Isma'il Jalayir (Figure 10.18) is an homage to 'Ali ibn Husayn, the fourth Shi'ite imam idealized as the perfect worshipper and therefore known as Zayn al-'Abidin (ornament of the worshippers).¹³¹ The text begins at the top center with an invocation to God as the Dear, the Munificent (*huwa al-'aziz al-wahhab*) in place of the usual basmala. It is flanked by invocations to the Prophet's nephew and son-in-law 'Ali ibn Abi Talib, whom Shi'ites regard as the first imam: 'O chosen one! O 'Ali, peace be upon him' (*ya murtada ya 'ali 'alayhi al-salam*). The central line of text written in very large (*alif* measures more than 11 cm high) black *nasta'liq* is an invocation to this 'Ali's grandson, 'Ali ibn Husayn, the fourth imam often known as Zayn al-'abidin. Inserted at the bottom between the dots vocalizing the large black invocation is the artist's signature, drawn by (*raqamaha*) the poor Isma'il, identified first as the painter (*al-musawwir*) and then as calligrapher (*al-katib*). Though the composition was executed in the reverse order (first the calligraphy and then the painting), Isma'il Jalayir considered his painterly talents more important than his calligraphic ones. The last word in the line is *sana* (year), but the numerals showing the date were apparently cut off when the sheet was mounted and trimmed.

All of the calligraphy is executed in a large and bold *nasta'liq*. The size of the dots shows that Isma'il Jalayir used a pen some 2.4 cm wide to write the large black inscription, but a much smaller pen (diameter 0.5 cm) to write the red inscriptions. The letter forms follow the traditional style of *nasta'liq*, but the ink is much more transparent than the opaque ink used earlier. The transparent ink makes it possible to see where the black ink pooled at the end of a stroke, as at the top of *alif* in *ya* and the final tails in *'ali*, *ibn*, and *husayn* and the beginning of *nun* in *hasan*.¹³² These variations



between opaque and translucent were carefully planned to create a rhythm of light and dark across the line, and they represent the idea of shading transferred from European art to Islamic calligraphy.

The bold calligraphy was then surrounded by a richly textured ground. The swooping *ha'* of *al-husayn* divides the composition diagonally, with a group of domed buildings filling most of the upper left. Painted in a Europeanizing style, the buildings have been carefully fitted to the strokes of the calligraphy. The uprights of *alif* and *lam* at the beginning of *al-salam*, for example, frame a tower reminiscent of the contemporary Shams al-'Imara and similar private apartments added to palace complexes in Tehran by Nasir al-din Shah.¹³³ The *shadda* marking the doubling of the *sin* is set against the dome of a large pavilion.

Juxtaposing the architecture in the upper left is a landscape with people and animals in the lower right. It too has been carefully fitted around the letters. The large bowls at the end of *'ali*, *ibn*, and *al-husayn* are filled with vignettes. The first on the right shows 'Ali seated before his young sons Hasan and Husayn. Other turbaned figures represent religious dignitaries, but there are also hunting scenes and depictions of women that seem to have nothing to do with the subject of the composition.

Figure 10.18 Page with an invocation to the fourth imam 'Ali ibn Husayn penned by Isma'il Jalayir, c. 1860.

In this technique, which is the opposite of *gulzar*, large calligraphic compositions, typically penned in *nasta'liq*, are set against an elaborate figural ground filled with buildings, people, and animals. The texts are usually pious invocations or prayers, and the figural scenes range in subject matter from depictions of the people involved in the vignettes to contemporary architecture and hunts.

This type of picture combining word and image illustrates changes that occurred in popular religion in Iran during the nineteenth century.¹³⁴ The ulema became more important in the lives of ordinary Shi'ites through the doctrine of *taqlid* (following the dictates of a *mujtahid*) and the evolution of a single authority in the figure of the *marja' al-taqlid* (reference point for emulation). The first to achieve this position was Shaykh Murtada ibn Muhammad Amin Ansari, who emerged as *mujtahid marja' al-taqlid* exactly at this time (c. 1855) and remained so until his death in 1864. Popular religious fervor was enhanced by the increasing practice of the *rawda-khana*, the recital of Husayn's suffering, and the introduction of the *ta'ziya*, the passion-play about the tragedy of Karbala.¹³⁵ Special performance centers known as *takiyyas* were set up for these plays, which were performed during the month of Muharram, and holy days, such as the birthdays of the imams, were also celebrated, often with the help of large painted canvases. This calligraphic painting invoking Zayn al-'Abidin reflects the popular veneration of the imams, and the combination of calligraphy and figural vignettes shows that in Qajar Iran religious veneration was no bar to figural representation.

Notes

1. The history of this period is treated in the third volume, 'The Gunpowder Empires and Modern Times,' of Marshall G. S. Hodgson, *The Venture of Islam* (Chicago, 1974), especially book five, 'The Second Flowering: The Empires of Gunpowder Times,' 3:1-162, and the opening section of book six, 'The Islamic heritage in the Modern World,' 3:163-356.
2. Safavid history, oddly neglected in earlier times, has recently been the subject of much inquiry, with a special round-table devoted to its study. The papers from the first three round-tables have been published by Jean Calmard (ed.), *Études Safavides*, Bibliothèque Iranienne 39 (Paris and Tehran, 1993); Charles Melville (ed.), *Safavid Persia: The History and Politics of an Islamic Society* (London, 1996); Andrew J. Newman (ed.), *Society and Culture in the Early Modern Middle East: Studies on Iran in the Safavid Period*, Islamic History and Civilization: Studies and Texts (Leiden, 2003). The study of Safavid art history has not lagged far behind in the capable hands of Sheila Canby, curator at the British Museum; see, for example, her monograph, *The Golden Age of Persian Art, 1501-1722* (London, 1999); the papers from a 1998 conference she organized at the British Museum, Sheila R. Canby (ed.), *Safavid Art and Architecture* (London, 2002), and the catalogue from the splendid exhibition she organized, Jon Thompson and Sheila R. Canby (eds), *Hunt for Paradise: Court Arts of Safavid Iran, 1501-1576* (Milan, 2003).
3. The prefaces to many of these albums have been published and translated by Wheeler M. Thackston, *Album Prefaces and Other Documents on the History of Calligraphers and Painters*, Studies and Sources in Islamic Art and Architecture, Supplements to Muqarnas (Leiden, 2001). The genre, already known under the Timurids (see Chapter 7 and David J. Roxburgh, *Prefacing the Image: The Writing of*

Art History in Sixteenth-Century Iran, Studies and Sources in Islamic Art and Architecture, Supplements to Muqarnas [Leiden, 2001]), became more popular under the Safavids. The earliest intact album is the one compiled after 945/1538 by Shahquli Khalifa *muhrdar* (Keeper of the Seal) for Shah Tahmasp (IUL, F.1422). The text (Thackston, *Album Prefaces*, 1–3) is so replete with puns involving the terminology of calligraphy and writing that it can be rendered into English only via an abridged translation.

Much more famous, mainly because it is much clearer and more explicit, is the contemporary preface by Dust Muhammad for the album of calligraphic and pictorial specimens (TKS, H2154) he prepared for Bahram Mirza (1517–49), brother of Shah Tahmasp (Thackston, *Album Prefaces*, 4–17). The author, whose full name was Dust Muhammad ibn Sulayman Haravi, was a calligrapher and possibly a bookbinder, but not a painter (for a critical biography, see Charyar Adle 'Autopsia, in absentia: sur la date de l'introduction et de la constitution de l'Album de Bahrām Mirzā par Dust-Mohammad en 951/1544,' *Studia Iranica* 19, no. 2 [1990]: 219–56; 'Les artistes nommés Dust-Mohammad,' *Studia Iranica* 22, no. 2 [1993]: 219–96). In the album preface, dated at the end by a chronogram equivalent to 951/1544–5, the Safavid scribe traces the art of writing to Adam and the perfection of kufic script to the prophet's son-in-law 'Ali ibn Abi Talib. 'Ali, he continues, appeared in a dream to the 'Abbasid calligrapher Ibn Muqla and instructed him to write *thuluth*, *muhaqqaq*, and *naskh*, which he calls the 'Arabic script.' From this point onward, Dust Muhammad describes the history of calligraphy in terms of master–pupil relationships, tracing the development of the Six Pens from Ibn Muqla to Ibn al-Bawwab, Yaqut, his six followers, and their followers who worked for the Timurids. Dust Muhammad then turns to an exposition of the masters of *nasta'liq*, tracing its origins to Mir 'Ali Tabrizi and its development under the Timurids and Turkomans. Dust Muhammad next recounts the history of painting and painters in a similar fashion before concluding with three short accounts of the scribes, painters, and illuminators who worked in the Safavid royal scriptorium. Although the beginning of his account is clearly apocryphal, the chronicler's information becomes more accurate the closer he gets to his own time, when he was writing from personal experience. Furthermore, he tried to rely on the specimens that he included in the album, whose pages, though reassembled, often illustrate his points. In short, Dust Muhammad's preface is the first art-historical account of the history of Persian calligraphy and painting.

The type of preface written by Dust Muhammad was soon imitated by other authors. In 964/1556–7 Qutb al-Din Yazdi, storyteller (*qissa-khan*) and calligrapher at the court of Shah Tahmasp, wrote a biographical treatise on scripts and painters, *Risālayi dar tarikh-i khatt wa naqqashan*. The text was composed for an unknown album made for Tahmasp and remained in circulation for centuries. One copy was made in 1057/1647, another in 1096/1684–5, and a third sometime in the eighteenth century. Husayn Khadivjam has published an abridged translation 'Risāla-i dar tārikh-i khat wa naqqāsh,' *Sukhan* 17 (1346/1967): 666–82.

Qutb al-Din's treatise made an immediate impact at Tahmasp's court, for it was plagiarized and used in a balderized version in 972/1564–5 by the person who compiled the album H2161, either the amir Ghayb Beg or the calligrapher Sayyid Ahmad Mashhadi

(Thackston, *Album Prefaces*, 24–9; comments in Martin B. Dickson and Stuart Cary Welch, *The Houghton Shahnama* [Cambridge, MA, 1982], 241–2, and Oleg F. Akimushkin, 'The Sources of "The Treatise on Calligraphers and Painters" by Qāzā Ahmād Qumī,' *Manuscripta Orientalia* 1, no. 1 [1995]: 5–11).

Qutb al-Din was also the oral source for a longer and better-known Turkish treatise on calligraphers and painters entitled *Manaqib-i hunarvaran* (The Exploits of Artists), composed in 995/1586–7 by the Turkish poet and historian Mustafa 'Ali (1541–1600), sometimes known as 'Ali Efendi (for a comprehensive and well-documented biography, see Cornell H. Fleischer, *Bureaucrat and Intellectual in the Ottoman Empire: The Historian Mustafa 'Ali* [1541–1600] [Princeton, 1986]). An intellectual and bureaucrat in the Ottoman administration, Mustafa 'Ali was appointed finance director in Baghdad in 1585. Although he found the city a relative backwater and his appointment a political disaster, Mustafa 'Ali took advantage of his year there to immerse himself in the Persianate milieu. At least thirty poets lived in the city, including Qutb al-Din Yazdi, who had emigrated to Baghdad c. 1566. Mustafa 'Ali apparently acquired a copy of the Persian calligrapher's treatise, and this work, along with their friendship, spurred 'Ali to compose a similar one. Mustafa 'Ali's second oral source was 'Abdallah Kirimi (*katib-i talar*), one of the foremost calligraphers at the Ottoman court, and *Manaqib-i hunarvaran* is a major source of information for the development of calligraphy at both the Safavid and Ottoman courts. It has been edited and published several times in modern Turkish: *Manāqib-i Hunarvarān*, ed. İbnülemin Mahmud Kemal Inal (Istanbul, 1926); *Manākib-i Hünerverān*, Hattatların ve Kıtāb Sanatçıların Destanları (Menākib-i Hünerverān), ed. Müjgan Cumbur (Ankara, 1982). Dickson and Welch used substantial parts for the biographies of Safavid artists they compiled for their magisterial monograph, *The Houghton Shahnama*. The treatise has recently been translated into Persian as well: Muṣṭafa 'Āli Efendi, *Manāqib-i hunarvarān*, trans. Tawfiq Subhani (Tehran, 1991).

Qutb al-Din's treatise, probably through the intermediate version in the preface to the Amir Ghayb Beg album (H2161), also served as the source for the third, and best-known, treatise about Safavid calligraphy, this one composed a decade later by Qadi Ahmad. The author's father Mir Munshi was, as his titles show, a *sayyid* (descendant of the Prophet) and a scribe in the chancery who had served as vizier to the Safavid prince Ibrahim Mirza at Mashhad. Ibrahim Mirza was one of the main patrons of the book in the early sixteenth century and maintained a large scriptorium, most of whose members were well known to Qadi Ahmad himself. Qadi Ahmad composed his treatise in 1004/1596, expanded it in 1007/1598–9, and rewrote it a decade later in 1016/1607 [see Yves Porter, 'Notes sur le "Golestan-e honar" de Qazi Ahmad Qomi,' *Studia Iranica* 17, no. 2 [1988]: 207–23; Akimushkin, 'Sources']. In the first versions Qadi Ahmad referred to his work as a *risala* (treatise or epistle); the expanded version was called *Gulistan-i Hunar* (The Rose-garden of Art), the title by which it is usually known today. B. N. Zakhoder published a Russian translation of the work in 1947; this served as the basis for Minorsky's 1959 English translation, *Calligraphers and Painters: A Treatise by Qāḍī Ahmād, Son of Mīr-Munshī* (Circa AH 1015/AD 1606), intro. by B. N. Zakhoder, trans. V. Minorsky, Occasional Papers (Washington, DC, 1959). Suhayli-Khwansari (1352/1974) published a Persian edition as well: Mīr

Munshī Qummī Qāḍī Aḥmad, *Gulistān-i hunar*, ed. Aḥmad Suhaylī-Khānsārī (Tehran, 1352/1974).

In the introduction Qadi Ahmad presents a now-standard account of the origin and development of the art of writing, going back to the creation of the reed pen and the perfection of writing by ‘Alī ibn Abī Talīb. As Zakhoder pointed out in his preface (Qadi Ahmad, *Calligraphers and Painters*, 21), Qadi Ahmad combines the mystical idea of the written word with the concrete demands of production. He considers the written word a talisman and the process of writing a magic art connected not only with the master’s technique and skill but also with his spiritual and moral character. Purity of writing is therefore equivalent to purity of the soul.

Qadi Ahmad divides the main part of his original treatise into three parts. In Chapter 1, he discusses *thuluth* and other scripts resembling it. Chapter 2 covers *ta’liq*, and Chapter 3 *nasta’liq*, including a verse treatise by the famous Timurid calligrapher Sultan ‘Alī Mashhadi. Qadi Ahmad’s later version concludes with a section on the work of artists, gilders, stencilers, gold-sprinkling, cut-outs, paper coloring, and the like. The later version (manuscript H in Minorsky’s translation, Qadi Ahmad, *Calligraphers and Painters*, 195–201; Qadi Ahmad, *Gulistan-i Hunar*, 161–70) contains an appendix on ruling, gilding, diluting lapis lazuli, and preparing various colors, ink, and other accessories of a scriptorium, but this is written in a different style, so Minorsky concluded that it was added by some technician and was not the work of Qadi Ahmad himself.

Altogether, Qadi Ahmad’s treatise, like those of his predecessors, is less a history of writing than an anthology, or *tadhkira*, a typical form of Persian literature. The main emphasis is on the biographies of artists, and the work is thus an artistic chronicle. This was by no means a new form, and Qadi Ahmad, like the author of the preface to the Amir Ghayb Beg album (TKS H2161; Thackston, *Album Prefaces*, 24–9), cribbed some of his material verbatim from earlier sources. Sometimes, he acknowledged his sources, as with the treatise by Sultan ‘Alī Mashhadi (*Gulistan-i Hunar*, 64–78; *Calligraphers and Painters*, 106–25). Sometimes he did not. One of Qadi Ahmad’s unidentified sources was Bahram Mirza’s secretary Budaq Qazvini, a secretary-clerk (*munshi*) and official in the tax office under Tahmasp, who compiled his own treatise on calligraphy entitled *Javahir al-akhbar* (The Pearls of News). The autograph copy (St Petersburg, Russian National Library, Dorn 238), completed before the end of Jumada I 984/22 August 1576 and including eye-witness accounts of calligraphers and painters at the Safavid court, awaits a critical edition and translation.

4. Thus, chroniclers like Shams al-Din Muhammad Wasfi in the preface to the Shah Isma‘il II album compiled in 984/1576–7 (TKS 2138; folio 4a; text and translation in Thackston, *Album Prefaces*, 32) speaks of the eight basic and subsidiary scripts: *thuluth*, *muhaqqaq*, *naskh*, *rayhan*, *tawqi‘*, *riqa‘*, *ta’liq*, and *naskh-i ta’liq* (that is, *nasta’liq*).
5. Ḥabiballāh Faẓā‘ilī, *Atlas-i khaṭṭ: taḥqīq dar khaṭṭ-i islāmī* (Tehran, 1391/1971), 448–50; William Hanaway and Brian Spooner, *Reading Nasta’liq: Persian and Urdu Hands 1500 to the Present* (Costa Mesa, CA, 1995), 3.
6. Some Muslims today consider such images as blasphemous; see, for example, the deletion of certain images from films and books mentioned by Sheila S. Blair and Jonathan M. Bloom, ‘The Mirage of Islamic Art: Reflections on the Study of an Unwieldy Field,’ *Art Bulletin* 85, no. 1 (March 2003): 176.

7. For the theory of the two pens, see Yves Porter, 'From the "Theory of the Two *Qalams*" to the "Seven Principles of Painting": Theory, Terminology, and Practice in Persian Classical Painting,' *Muqarnas* 17 (2000): 109–18; Roxburgh, *Prefacing*, 199. The theory is already mentioned in Dust Muhammad's preface composed the following year (H2154; Thackston, *Album Prefaces*, 11) and was incorporated regularly in later works such as Shams al-Din Muhammad Wasfi's preface dated 984/1576 (TKS H2138; Thackston, *Album Prefaces*, 32) and the introduction to Qadi Ahmad's treatise (*Gulistan-i Hunar*, 9; Qadi Ahmad, *Calligraphers and Painters*, 49–50). For Safavid historiography and the albums, see Roxburgh, *Prefacing*.

The connection between conservatives' aversion to painting and Tahmasp's rejection of it remains to be fully explored, especially with an eye to both dated examples and texts. The groundbreaking work by Dickson and Welch, *The Houghton Shahnama*, sought to include painting as one of the acts forbidden in Tahmasp's periodic acts of repentance (*tawba*), in which he renounced such irreligious activities as pigeon-flying, shaving one's beard, and listening to *tanbur* (a stringed instrument) and *naqara* (double-drum) music, and closed taverns, opium dens, and brothels where such forbidden acts such as wine drinking took place (Abolala Soudavar, 'Between the Safavids and the Mughals: Art and Artists in Transition,' *Iran* 37 [1999]: 49–66). At least two such edicts are known, dated to early 940/late July 1544 and 963/1555–6 (Adle, 'Dust-Mohammad,' 239–41; Marianna Shreve Simpson, *Sultan Ibrahim Mirza's 'Haft Awrang', a Princely Manuscript from Sixteenth-Century Iran* [New Haven and London, 1997], 329, n. 12). The relationship of painting to these edicts remains unclear, and scholars have suggested other reasons for Tahmasp's disinterest in the arts – ranging from penitence to avarice, overspending on his new capital, and even eye problems. For a discussion of some of them, see Ehsan Eshraghi, 'Description contemporain des peintures murales disparues des palais de Šah Tahmasp à Qazvin,' in *Arts et société dans le monde iranien*, ed. Chahryar Adle (Paris, 1982), 117–26; Adle, 'Autopsia,' 242; Adle, 'Dust-Mohammad,' 241; Soudavar, 'Between Safavids and Mughals.'
8. On this subject, see the recent series of essays, Bernard Heyberger and Sylvia Naer (eds), *La Multiplication des images in pays d'Islam de l'estampe à la télévision (17e–21e siècle)*, Istanbul Texte und Studien (Würzburg, 2003).
9. The reason why is unclear. It may be connected with the paucity of new architectural constructions in the sixteenth century, on which see Sussan Babaie, 'Building on the Past: The Shaping of Safavid Architecture, 1501–76,' in *Hunt for Paradise: Court Arts of Safavid Iran, 1501–1576*, ed. Jon Thompson and Sheila R. Canby (Milan, 2003), 27–48. There were, for example, fewer new mosques and madrasas which might have required new copies of the Koran. More likely, the lack of Koran manuscripts can be connected with the increase in secular manuscripts, especially of Persian poetry.
10. Shiraz was more important than the two other contemporary centers of calligraphy. Texts tell us that the royal Safavid scriptorium was active at the capital Tabriz, but few signed and dated Koran manuscripts are known to have been made there. A second area was eastern Iran and Central Asia, where calligraphers continued the Herati tradition established under the Timurids. See, for example, the Koran manuscript copied for the Shibanid ruler of Bukhara, 'Abd al-'Aziz, by

Muhammad Husayn ibn Muhyi al-Haravi in Jumada I 952/July–August 1545; Ham, Surrey; Keir Collection, VII.46; B. W. Robinson, *Islamic Painting and the Arts of the Book*, Catalogue of the Keir Collection (London, 1976), pl. 148.

11. For the Turkoman commercial style in the fifteenth century, see B. W. Robinson, 'The Turkman School to 1503,' in *Arts of the Book in Central Asia*, ed. Basil Gray (Boulder, CO, 1979), 215–48. For its continuation in the sixteenth century, see Grace R. Guest, *Shiraz Painting in the Sixteenth Century* (Washington, DC, 1949); Chahryar Adle, 'Recherche sur le module et le tracé correcteur dans la miniature orientale. I. La mise en évidence à partir d'un exemple,' *Le Monde Iranien et l'Islam* 3 (1975): 81–106. Sixteenth-century Shiraz was also the source for illustrated books collected by Ottoman viziers; see Lâle Uluç, 'Ottoman Book Collectors and Illustrated Sixteenth Century Shiraz Manuscripts,' *Revue du Monde Musulmane et de la Méditerranée* 87–8 (1999): 85–107.

The calligrapher and chronicler Budaq Qazvini, who visited Shiraz c. 1576–7, described the commercial nature of small family businesses that flourished there (the translation is given in Oleg F. Akimushkin and Anatol A. Ivanov, 'The Art of Illumination,' in *The Arts of the Book in Central Asia 14th–16th Centuries*, ed. Basil Gray [Boulder, CO, 1979], 50 and n. 73): 'There are in Shiraz many writers of *nasta'liq*, all copying one another, making it impossible to distinguish between their work. The women of Shiraz are scribes, and if illiterate, they copy as if they were drawing. The author [of this report] visited Shiraz and ascertained for himself that in every house in this city the wife is a copyist (*katib*), the husband a painter (*musawwir*), the daughter an illuminator (*mudhahhib*) and the son a binder (*mujallid*). Thus any kind of book can be produced within one family. Should anyone want to obtain a thousand illuminated books, they could be produced in Shiraz within a year. They all follow the same pattern, so that there is nothing to distinguish them.' Budaq Qazvini's account, however interesting, has the ring of fantasy. It is impossible to imagine that an illiterate person could copy calligraphy.

12. Dublin, CBL 1558; Arthur J. Arberry, *The Koran Illuminated: A Handlist of Korans in the Chester Beatty Library* (Dublin, 1967), no. 156; David James, *Qur'ans and Bindings from the Chester Beatty Library: A Facsimile Exhibition*, exhibition catalogue (n.p., 1980), nos. 58–60. On the calligrapher, see also David James, *After Timur: Qur'ans of the 15th and 16th Centuries*, ed. Julian Raby, The Nasser D. Khalili Collection of Islamic Art (London, 1992), 144–9.
13. Qadi Ahmad (*Gulistan-i Hunar*, 28; *Calligraphers and Painters*, 67), for example, mentions Mawlana Ruzbihan as one of eight Shirazi calligraphers who were masters of the Six Pens. According to the Safavid chronicler, they had designed most local inscriptions and left many works. He was impressed by the quality of their work, for he adds that most of the other renowned calligraphers in Fars, Khurasan, Kirman, and Iraq were merely 'eaters of crumbs from their table.' Ruzbihan's father Na'im al-Din was a well-known Shirazi calligrapher who copied at least fourteen manuscripts over a thirty-year span (1481–1510), and his grandfather Sadr al-Din was an illuminator (*mudhahhib*). Ruzbihan himself was active for thirty-five years during the first half of the sixteenth century.
14. To judge from their names, Ruzbihan and his family were adherents of the Ruzbihaniyya, the order founded by the local Sufi saint, Sadr al-Din Ruzbihan Baqli (1128–1209). He was known for his outrageous

ecstatic sayings, and his writings, particularly his voluminous commentary on the Koran, are still popular (see, for example, Ruzbihan Baqli, *The Unveiling of Secrets: Diary of a Sufi Master*, trans. Carl W. Ernst [Chapel Hill, NC, 1997]). Ruzbihan Baqli's tomb in Shiraz became a major shrine center (*The Encyclopedia of Islam, New Edition*, ed. H. A. R. Gibb and others [Leiden, 1960], 'Ruzbihan,' J. Spencer Trimingham, *The Sufi Orders in Islam* [Oxford, 1971], 15 and 34; Carl W. Ernst, *The Shambhala Guide to Sufism* [Boston and London, 1997]). In the early fourteenth century, his great-great-grandson 'Izz al-Din Mas'ud added a new section to it, and a number of Ruzbihan's relatives and followers were buried there. The tomb-hospice became a center of pilgrimage, visited by the globetrotter Ibn Battuta in 1325 (Ibn Battūta, *The Travels of Ibn Battūta*, ed. and trans. H. A. R. Gibb [New Delhi, 1993 [1958–71]], 2:216–17) and mentioned by his contemporary, the Ilkhanid geographer Hamdallah Mustawfi (Hamdallāh Mustawfī Qazvinī, *Nuzhat al-Qulūb*, ed. Muhammad Dabīr-siyāqī [Tehran, 1336/1958], 139). In the later part of the century, the shrine waned in popularity and by the fifteenth century it had fallen into oblivion.

The Ruzbihaniyya was a derivative of the Kazaruniyya, a Sufi school (*tariqa*) that developed around the tomb of Shaykh Abu Ishaq (d. 1034) in Kazarun. It too continued to be a center of pilgrimage and manuscript production until the seventeenth century; see Filiz Çağman and Zeren Tanındı, 'Manuscript Production at the Kazarūnī Orders in Safavid Shiraz,' in *Safavid Art and Architecture*, ed. Sheila R. Canby (London, 2002), 43–8.

15. For the latest word on illumination in the early Safavid period, see Sheila R. Canby, 'Safavid Illumination,' in *Hunt for Paradise: Court Arts of Safavid Iran, 1501–1576*, ed. Jon Thompson and Sheila R. Canby (Milan, 2003), 135–54.
16. By way of comparison, the written area in the pages by Zayn al-'Abidin occupies just under one-half of the page.
17. Illustrated in black and white in James, *Qur'ans and Bindings*, pl. 58.
18. Illustrated in black and white in James, *Qur'ans and Bindings*, pl. 59, and in color in Jonathan Bloom and Sheila Blair, *Islamic Arts, Art and Ideas* (London, 1997), no. 180.
19. We know this because another double page detached from its original Koran manuscript (Washington, DC, Freer-Sackler S86.0082–3; Glenn D. Lowry and Milo Cleveland Beach, *An Annotated and Illustrated Checklist of the Vever Collection* [Washington, DC, 1988], nos. 7–8; Sheila R. Canby, 'Safavid Illumination,' 5.6) contains an almost exact copy of the decoration, but the text is laid out differently.
20. Illustrated in color in Arberry, *Koran Illuminated*, pl. 7. Anna Contadini, 'Travelling Pattern: A Qur'anic Illumination and its Secular Source,' in *Safavid Art and Architecture*, ed. Sheila R. Canby (London, 2002), n. 2, has suggested that the colophon should be interpreted as hendiadys, a literary device expressing an idea by means of two words linked by 'and' rather than a grammatically more complex form such as an adverb qualifying an adjective. Such an explanation is unnecessarily complicated, particularly as Ruzbihan signed both illumination and writing in other manuscripts and there is no reason not to accept the usual interpretation, as James did, that Ruzbihan was both calligrapher and illuminator of this fine Koran manuscript.
21. See the discussion by James, *After Timur: Qur'ans of the 15th and 16th Centuries*, 113–15.

22. There are, of course, exceptions, and a few manuscripts, like the one transcribed by Muhammad Husayn ibn Muhyi al-Haravi in the Keir Collection, are written only in a large *naskh* or *muhaqqaq*.
23. Again, the manuscript in the Keir Collection is exceptional: it maintains the traditional layout, with Sura 1 on folio 2b and the beginning of Sura 2 on folio 3a.
24. This is the case, for example, with a Koran manuscript in Tehran (INM, no. 4297; Mahdi Bayani, *Ahvāl wa āthār-i khushnivīsān: nasta'liq nivīsān*, 2nd edn [Tehran, 1363], 1052; *Gulchīnī az qur'ānhā-yi khaṭṭī-yi mūza-yi dawrān-i islāmī* [A Selection of Koran Manuscripts in the Museum of the Islamic Eras] [Tehran, 1375/1997], 75) transcribed by Pir Muhammad *al-thani* (the second) in 929/1522–3. Ruzbihan was responsible for both the main Koranic and additional divinitory texts in another manuscript dated 952/1545–6 (Khalili Collection, QUR111; James, *After Timur: Qur'ans of the 15th and 16th Centuries*, no. 39). Both texts are found in another sumptuous manuscript of the Koran finished in mid Sha'ban 959/July 1552 (Khalili Collection QUR 729; James, *After Timur: Qur'ans of the 15th and 16th Centuries*, no. 43). Very similar in size, format, and quality to the one penned by Ruzbihan in the CBL, it belonged to the Mughal emperor Shah Jahan. James suggested that it might have been a present from Shah Tahmasp. Provenance is thus not a useful way of identifying origin.
25. On the inscriptions from Isfahan, see Lutfallah Hunarfar, *Ganjīna-yi āthār-i tārikhī-hi isfahān* (Tehran, 1350/1977), 401–68. On 'Ali Riza, see Bayani, *Ahvāl wa āthār-i khushnivīsān*, no. 655; *Encyclopedia Iranica*, ed. Ehsan Yarshater (London and New York, 1985), 'Ali-Reza 'Abbāsī.' 'Ali Riza was born and raised in Tabriz, and in his youth often carried the epithet al-Tabrizi. The dates of his birth and death are unknown, but extant works mark a career stretching over three decades (1585–1617). Said to have been an autodidact in *nasta'liq*, 'Ali Riza was trained in the Six Pens by 'Ala' al-Din Muhammad Tabrizi, better known as 'Ala' Beg (fl. until 1593), a calligrapher who had also designed many of the inscriptions in mosques in Tabriz (Qadi Ahmad, *Gulistan-i Hunar*, 38–40; Qadi Ahmad, *Calligraphers and Painters*, 80–2). In 1585, to escape the Ottoman invasion of Azerbaijan, 'Ali Riza emigrated from Tabriz to Qazvin, but then moved to Khurasan to join the entourage of Farhad Khan Qaramanlu, 'Abbas' commander-in-chief and an active patron of the arts and letters. Shah 'Abbas, noting 'Ali Riza's proficiency, soon asked the calligrapher to join the royal scriptorium. 'Ali Riza is said to have made this move on 1 Shawwal 1001/1 July 1593, after which he abandoned the epithet al-Tabrizi in favor of al-'Abbasi. 'Ali Riza's favor with the shah waxed, and the calligrapher soon replaced Sadiqi Beg Afshar as royal librarian (*kitabdar*). Over the next decades 'Ali Riza produced many calligraphic specimens as well as designs for inscriptions.
In his own day, 'Ali Riza was most famed for his *nasta'liq*, in which he closely followed the style set by Mir 'Ali Haravi. He used *nasta'liq* for calligraphic specimens and architectural inscriptions, such as the gold-embossed plaques for the shrine of Imam Riza at Mashhad dated 1011–12/1602–4 (*The Arts of Islam*, exhibition catalogue, Hayward Gallery [London, 1976], no. 247). In modern times, however, 'Ali Riza is best known for his work in *thuluth*, particularly the inscriptions in tile mosaic decorating the buildings around the maydan in 'Abbas' new capital at Isfahan.
26. Douglas Pickett, 'Inscriptions by Muhammad Ridā al-Imāmī,' *Iran* 22 (1984): 91–102.

27. On this problem, see Contadini, 'Travelling Pattern.'
28. Dated examples include a manuscript in the Khalili Collection dated 1101/1689–90 (QUR301; Manijeh Bayani, Anna Contadini, and Tim Stanley, *The Decorated Word: Qur'ans of the 17th to 19th Centuries*, The Nasser D. Khalili Collection of Islamic Art [London, 1999], no. 45); a second in the Boston Museum of Fine Arts dated 1125/1713 (*Survey*, pl. 977/B; Anthony Welch, *Shah 'Abbas and the Arts of Isfahan* [New York, 1973], no. 88); and a third in the British Library dated 1141/1728–9 (Or. 13371; Martin Lings and Yasin Safadi, *The Qur'ān* [London, 1976], no. 146).
29. The translation in the Khalili copy, for example, was newly composed for Shah Sulayman in 1084/1673–4 by 'Ali Riza ibn Kamal al-din Adrakani. See the comments in Bayani, Contadini, and Stanley, *The Decorated Word*, 126. For Majlisi, see *EI*/2, 'Madjlisī, Mulla Muḥammad Bākīr.'
30. Latest discussions of his work by Julian Raby in Nabil F. Safwat, *The Art of the Pen: Calligraphy of the 14th to 20th Centuries*, The Nasser D. Khalili Collection of Islamic Art (London, 1996), 212–27, and Manijeh Bayani and Tim Stanley in Bayani, Contadini, and Stanley, *The Decorated Word*, 127–30.
31. Ahmad was born in Nayriz, a town in the mountains of Fars on the route between Shiraz and Kirman. He worked mainly in the capital Isfahan, where he was closely associated with Shah Husayn. In the first decade of the shah's rule (1694–1704), Ahmad Nayrizi often signed works using the epithet *sultani* (royal) and had access to prized works in the royal collection, such as a copy of the *Sahifa al-sajjadiyya* transcribed by Yaqut. After the brutal Afghan invasion of 1722, during which Isfahan was sacked and the shah deposed, Ahmad Nayrizi took refuge in the house of one Hajji Muhammad Sarraf. Despite the lack of court patronage, Ahmad continued to produce fine manuscripts for another two decades.
32. At least ten Koran manuscripts in his hand are known. This one, CBL 1561, has been published by Arberry, *Koran Illuminated*, no. 177; James, *Qur'ans and Bindings*, no. 67. The Khalili Collection has a similar manuscript dated 1118/1706–7 (QUR246; Bayani, Contadini, and Stanley, *The Decorated Word*, no. 53) as well as a smaller one dated 1153/1740–1 (QUR384; Bayani, Contadini, and Stanley, *The Decorated Word*, no. 54). A slightly different copy penned by Ahmad Nayrizi in Sha'ban 1117/December 1705 for Muhammad Ibrahim Beg *yuzbashi* (the centurion) and rebound in 1217/1802 with lacquer covers praising Fath 'Ali Shah, has been published in Mohammad-Hasan Semsar, *Golestan Palace Library: A Portfolio of Miniature Paintings and Calligraphy* (Tehran, 2000), 33–8. Since Nayrizi and Tabrizi look very similar in Persian, this manuscript (no. 648) was misattributed to Ahmad Tabrizi by Badrī Ātabay, *Fihrist-i qur'ānhā-yi khaṭṭī-yi kitābkhāna-yi saltanatī* (Tehran, 1351/1981), no. 6.
33. As in a page of calligraphic specimens dated 1121/1709–10 (Khalili Collection, CAL62; Safwat, *Art of the Pen*, no. 160).
34. On the repetition of compositions, see A. Adamova, 'Repetition of Compositions in Manuscripts: The *Khamse* of Nizami in Leningrad,' in *Timurid Art and Culture: Iran and Central Asia in the Fifteenth Century*, ed. Lisa Golombek and Maria Subtelny, Supplements to Muqarnas (Leiden, 1992), 67–75.
35. There are, for example, at least forty examples of his work in the collection of the Gulistan Library, many of them once owned by Mirza

- Mahdi Khan Astarabadi, bibliophile and secretary to Nadir Shah, or by the Qajar rulers Fath 'Ali Shah, Muhammad, and Nasir al-Din Shah. See Bayani, Contadini, and Stanley, *The Decorated Word*, 128–9, citing M. H. Simsar's article 'Aḥmad-i Nayrizi' in Kazem Musavi Bojnurdi (ed.), *The Great Islamic Encyclopedia/Da'irat al-Ma'Ārif-i Buzurg-i Islāmī* (1367/1983), 7:100–8.
36. Bayani, *Ahval wa athar-i khushnivisan*, 755–62, no. 1097.
 37. An example in the Art and History Trust Collection (Abolala Soudavar, *Art of the Persian Courts: Selections from the Art and History Trust Collection* [New York, 1992], 174) contains a commentary in *naskh*, signed by Ahmad Nayrizi, on the Koranic phrase (6:162) that life and death belong to God. At the bottom Visal added an inscription dated 1255/1839 in *shikasta* explaining that he copied the calligraphy at the request of Lutf 'Ali Khan as an exercise when recovering from a severe leg ache.
 38. Safwat, *Art of the Pen*, no. 163.
 39. Bayani, *Ahval wa athar-i khushnivisan*, 625–6, no. 849.
 40. E.g., a calligraphy dated 1248/1832–3 with a description of a wolf by Ibn 'Unqa al-Fazari (Khalili Collection, CAL188; Safwat, *Art of the Pen*, no. 164). In this example, however, the spaces between the lines are filled with cloud bands decorated with flowers, and the somewhat fussy decoration detracts from the readability of the script.
 41. Karāmat Ra'nā Husaynī, 'Sih farmān az muḥammad shāh barā-yi khūshnivisān-i shirāzī,' *Hunar va Mardum* 184 (1977): 83–5.
 42. See, for example, a cut-out specimen in *nasta'liq* penned by Fath 'Ali Shah and now in the collection of Prince Sadruddin Aga Khan; Anthony Welch, *Calligraphy in the Arts of the Muslim World* (Austin, TX, 1979), no. 67.
 43. Brief biography in *Hunar-i khatt wa zanān-i khūshnivīs dar tamaddun-i islāmī* (Tehran, 1375/1997), 110–11, no. 19.
 44. One in Tehran (INM 7574; *Gulchini*, 105) is dated 1244/1828–9. Another in the shrine museum at Qum (no. 305) is dated 1265/1848–9.
 45. Qadi Ahmad, *Gulistan-i Hunar*, 42–56; Qadi Ahmad, *Calligraphers and Painters*, 84–99.
 46. *Gulistan-i Hunar*, 52–3; *Calligraphers and Painters*, 95.
 47. See Eskandar Beg Monshi, *History of Shah 'Abbas the Great*, trans. Roger Savory (Boulder, CO, 1978), 1:269; Priscilla P. Soucek, 'Calligraphy in the Safavid Period 1501–76,' in *Hunt for Paradise: Court Arts of Safavid Iran, 1501–1576*, ed. Jon Thompson and Sheila R. Canby (Milan, 2003), 55.
 48. See, for example, the decree issued on 2 Jumada II 910/10 November 1504 on the authority of Shah Isma'il ordering the restitution of unwarranted taxes levied on the fiefdom near Qazvin belonging to a certain Amir Husayn (Art and History Trust Collection; Soudavar, *Art of the Persian Courts*, no. 55; Soucek, 'Calligraphy in the Safavid Period,' 51–4 and 3.2).
 49. The document has been published in Sheila R. Canby, *Golden Age*, no. 40. I thank her for providing a letter from the British Museum's file by A. H. Morton, who read the full text of the document, from which I draw my discussion here. Qadi Ahmad (*Gulistan-i Hunar*, 47–9; *Calligraphers and Painters*, 89–90) mentioned several people who were in charge of the correspondence of the shrine of Imam Riza: Mawlana Ibrahim Astarabadi (who had two sons who were also scribes, Sultan Mahmud and Isma'il) and Baha' al-Din Husayn (who had a son, Muhammad Qasim).

50. The European traveler Adam Olearius, who visited the shrine of Shaykh Safi at Ardabil in 1637, obtained such a certificate and mentioned that the shrine at Mashhad issued similar documents which were extremely helpful in warding off misfortune and disgrace.
51. In addition to documents with seal impressions, such as the firman for Shah Isma'il, one royal seal itself has been preserved: a remarkable rock crystal example made for Shah Tahmasp and now in the Khalili Collection; see Toby Falk (ed.), *Treasures of Islam* (London, 1985), no. 67; Mikhail B. Piotrovsky (gen. ed.), *Heavenly Art, Earthly Beauty* (Amsterdam, 1999), no. 276; Soucek, 'Calligraphy in the Safavid Period,' 3.19. On Safavid seals, one awaits Venetia Porter's forthcoming monograph on Arabic and Persian seals and amulets in the British Museum.
52. See, for example, the gold and black *tughra* for Isma'il on his firman. It was said to have been designed by his chancery scribe, Khwaja 'Atiq.
53. Such methods, for example, helped canonize the style of Sultan 'Ali. His manuscript of the *Mantiq al-Tayr* (Figure 7.17) was clearly examined by artists working for Shah 'Abbas in the early seventeenth century when the last four paintings were added and the manuscript stamped with his seal and endowed to the dynastic shrine at Ardabil. Sultan 'Ali's rhyming treatise was included in Qadi Ahmad's book: *Gulistan-i Hunar*, 64–9; Qadi Ahmad, *Calligraphers and Painters*, 106–25. Such treatises are hard to follow without pictures and might well have been supplied with illustrations like the eighteenth-century Ottoman example illustrated in Soucek, 'Calligraphy in the Safavid Period,' 3.2.
54. Sultan Muhammad Nur ('light'; fl. 1499–1550; Bayani, *Ahval wa athar-i khushnvisan*, no. 387, 272–81) was known for writing in colors. Other followers of Sultan 'Ali, named Muhammad, include Sultan Muhammad Khandan ('household'; fl. 1504–28; Bayani, *Ahval wa athar-i khushnvisan*, no. 384, 268–71), and Muhammad Abrishami ('silken'; d. before 951/1544–55; Bayani, *Ahval wa athar-i khushnvisan*, no. 855).
55. Bayani, *Ahval wa athar-i khushnvisan*, no. 703; *Elr*, "Ali Heravi." Mir 'Ali was born at Herat (hence his epithet Haravi, 'from Herat') to a family of *husayni sayyids* (descendants of the Prophets through his grandson Husayn). Because of his family connections, he spent time at the shrine of Imam Rida at Mashhad, but lived most of his life in Herat. He continued to work there after the Safavids took the city in 1506 and may have worked for the Safavid administration of Khurasan. After the Uzbeks captured Herat in October 1529, Mir 'Ali Haravi was taken to Bukhara, where he became the principal calligrapher for 'Abd al-'Aziz ibn 'Ubaydallah. Mir 'Ali apparently accompanied the Uzbek leader on campaign, and architectural inscriptions and colophons show that the calligrapher visited Mashhad and Samargand. He died at Bukhara. A chronogram that he is said to have composed posthumously for himself and revealed to a friend in a dream gives the date that he died (*fawt namuda*) as 951/1544–5. He was buried near the tomb of Sayf al-din Bakharzi.
56. The signature, or part of it, could also be written in smaller script up the left side, as in Figure 2.3. The calligrapher's name was given in a variety of ways. Sometimes the signature contains only the name of the calligrapher, typically prefaced by *al-faqir* (the poor). Other times the phrase begins with a verb, including *katabaha* (so-and-so wrote this); *mashaqahu* (so-and-so copied this), perhaps indicating a practice page

or denoting a lower level of accuracy and elegance; *qa'ilahu* (so-and-so composed this); *qata'ahu* (so-and-so cut this out); and *harrarahu* (so-and-so copied or perhaps outlined or filled this in). It remains for scholars to establish the precise meaning of these verbs and indeed whether they even had the same meaning at all times.

57. Mir 'Ali Haravi's calligraphy, already popular during his lifetime, became highly prized in later times. The Ottoman chronicler Mustafa 'Ali, writing c. 1590, reports that, somewhat astonishingly in his view, a calligraphic specimen by Mir 'Ali Haravi brought more than one by his model and predecessor Sultan 'Ali Mashhadi. The Mughal emperors were avid collectors of Mir 'Ali's work, and many examples of it are incorporated in the stupendous albums created for them. These albums usually have a pair of facing pages with calligraphy set within figural borders followed by a pair of facing pages with figural paintings set within floral or abstract borders. The borders, added during the Mughal period, are painted in gold and polychrome washes (Figure 2.3) and can even be seen to subsume the calligraphy they enclose. They exemplify the Mughals' preoccupation with decoration over writing. See further, Chapter 12.
58. Bayani reported, for example, that he had seen innumerable examples.
59. On the problem of Mir 'Ali's signatures, see Annemarie Schimmel, 'The Calligraphy and Poetry of the Kevorkian Album,' in *The Emperors' Album: Images of Mughal India*, Stuart Cary Welch, et al. (New York: The Metropolitan Museum of Art, 1987), 34, who suggests that an examination of the paper and decoration might be more helpful than the calligraphy in sorting out the works by Mir 'Ali from those by his disciples.
60. Cary Welch, et al., *The Emperors' Album*, no. 36. In the view of Schimmel, 'Calligraphy of Kevorkian Album,' 35, Mir 'Ali was not a great poet, 'but no worse than many versifiers whose lines fill the pages of later anthologies.'
61. Sultan Muhammad Nur was particularly good at juxtaposing different sizes of *nasta'liq*; see the example illustrated in Soucek, 'Calligraphy in the Safavid Period,' 3.13.
62. The calligraphy in these border fragments is sometimes signed by master calligraphers from the late fifteenth or sixteenth century such as Sultan 'Ali Mashhadi or Mir 'Ali Tabrizi. They attest to the Mughals' interest in these earlier masters of *nasta'liq* and show how aesthetic considerations of balance and symmetry, along with exquisite color and decoration, outweighed content and readability in assembling these pages and albums.
63. The Ottoman chronicler Mustafa 'Ali, for example, described how this practice worked at the Ottoman court, where artists in the royal atelier cut up pages with poetry on them and placed unconnected hemistiches at the border of each page like a commentary. Mustafa 'Ali Efendi, *Manaqib-i Hunarvaran*, 45–56, cited in Schimmel, 'Calligraphy of Kevorkian Album,' 36 and n. 30. Scholars of Persian poetry might profitably investigate the verbal connections between main and marginal texts.
64. Thackston, *Album Prefaces*, 15.
65. The other four were Rustam 'Ali, Shaykh Muhammad, 'Abdallah Shirazi, and the author himself. For Shah Mahmud, see the biographies in Bayani, *Ahval wa athar-i khushnivisan*, 295–307, no. 410; Simpson, *Haft Awrang*, 254–70. In addition to the short biography given by Dust Muhammad, his contemporary and colleague in the Safavid studio,

Shah Mahmud, was the subject of a lengthy biographical notice by his student, the chronicler Qadi Ahmad: *Gulistan-i Hunar*, 87–8; *Calligraphers and Painters*.

66. Shah Mahmud's work was already prized in Safavid times; many examples of it are included in the album prepared for Bahram Mirza (H2154) in whose preface Dust Muhammad praises the calligrapher as the foremost artist in Tahmasp's workshop.
67. TKS, H.S. 25; Martin Lings, *The Quranic Art of Calligraphy and Illumination* (London, 1976), no. 91; M. Uğur Derman, *The Art of Calligraphy in the Islamic Heritage*, trans. Mohamed Zakariya and Mohamed Asfour (Istanbul, 1998), 61–2; Soucek, 'Calligraphy in the Safavid Period,' 3.15. The colophon on folio 36ab is reproduced in Simpson, *Haft Awrang*, fig. 158. The dedicatory rosette at the beginning, specifying that the manuscript was ordered for the library of Sultan Muhammad Bahadur Khan, is added, and the princely quality suggests that the original patron probably had been Shah Tahmasp, but the Safavid shah apparently presented the manuscript to the Ottoman sultan Murad III on his accession in 1574.
The text is transcribed on quarter-*baghdadi* size sheets which are cream colored and densely dusted in gold. Regular pages in the 371-folio manuscript have nine widely spaced lines; the opening pages juxtaposing Sura 1 and the beginning of Sura 2 have five lines of text interspersed with four bands of arabesque scrolls. The text is penned in fine black *nasta'liq*, with chapter headings written in cartouches in white *riqa'*.
68. Budaq Qazvini (f. 113v, cited in Adle, 'Dust-Mohammad,' 227, n. 38) reports that the calligrapher Dust Muhammad transcribed an entire manuscript of the Koran in *nasta'liq*. Several pages from other Koran manuscripts in *nasta'liq* have survived as well. Bayani (*Ahval wa athar-i khushnvisan*, 302) mentions a section of a Koran manuscript in the Karimzada-Tabrizi collection, whose seven folios of text, comprising Suras 48–73 written in *nasta'liq* with headings in *thuluth*, are signed by Shah Mahmud Nishapuri at the capital Tabriz. Similarly, the Khalili Collection owns an album page with Koran 48:1–4 written in *nasta'liq* (CAL275; Safwat, *Art of the Pen*, no. 46).
69. The opening pages of the Koran manuscript can be compared, for example, to those in Shah Mahmud's copy of Nizami's *Khamasa* (BL, Or. 2265; Stuart Cary Welch, *Wonders of the Age: Masterpieces of Early Safavid Painting, 1501–1576* [Cambridge, MA, 1979], no. 49) and in the Amir Husayn Beg album compiled by Malik Daylami in 958/1560–1 (H2151; Soucek, 'Calligraphy in the Safavid Period,' 3.20). Later pages have gold borders with large lotus flowers added, according to Derman, under the supervision of Hasan Baghdadi in 970/1563.
70. Contrary to what has been claimed (Soucek, 'Calligraphy in the Safavid Period,' 66), these elongations were chosen for visual effect rather than to enhance the verbal elongations that occur when reciting the text.
71. London, BL, Or. 2265. The work demands a full monograph. In the meanwhile, see Stuart Cary Welch, *Wonders of the Age*, 134–75.
72. The texts of the colophons, ranging from early Jumada II 946/mid-October 1539 to 20 Dhu'l-Qa'da (not 10 as stated) 949/27 March 1543 are given in Simpson, *Haft Awrang*, 387–8.
73. Shah Mahmud was justly proud of his titles and epithets, alluding to them in the ink he used. By writing his epithet *al-shahi* in gold, he created a visual pun on his other epithet *zarin qalam* (golden pen) and

- provided a fitting accompaniment to the gold-dusted paper used in these royal manuscripts, perhaps metaphorically comparing the shah to the sun.
74. Shah Mahmud may well have been working on other manuscripts during this period. The one other signed and dated work done by him at this time is a copy of Sa'di's *Gulistan* completed in early Rajab 947/early November 1540 (BN, supp. pers. 1431; see the list in Simpson, *Haft Awrang*, 395–405). He may have been working on undated works as well.
 75. The rulings and illumination in Shah Mahmud's copy of the *Khamsa* are also more delicate and balanced than those in Sultan 'Ali's copy of the *Mantiq al-Tayr*. In the *Mantiq al-Tayr* the rulings make the two middle columns narrower and the two sides columns wider so that there is extra blank space before the first hemistich and after the last. In contrast, the rulings in the *Khamsa* set off four columns of almost equal width, so that all the calligraphy begins near the ruling.
 76. Illustrated in black and white in Stuart Cary Welch, *Wonders of the Age*, no. 49. The calligraphy is surrounded by contour lines pricked in gold, and the gold background filled with minute blue sprigs and leaves, some in their own contour lines. Central cartouches are inscribed in white *riqa'* outlined in black, the same style used for headings in his Koran manuscript. These colors also echo the frame bands linking the multiple medallions finely decorated with arabesques and flowers. The margins have designs drawn in silver and several tones of gold.
 77. One sign of Tahmasp's withdrawal of patronage may be the unfinished nature of this manuscript. Several paintings were only added by Muhammad Zaman in the seventeenth century, and the dedicatory inscription was inscribed in the rosette on the opening page (fol. 1b). The same is true of a copy of Jami's *Yusuf and Zulayha* transcribed by Shah Mahmud in 950/1543–4 (BN, supp. pers. 1919; Francis Richard, *Splendeurs persanes: manuscrits du XIIIe au XVIIe siècle* [Paris, 1997], no. 110), which was refurbished at Bijapur in 1575 under the Adilshahis.
 78. FGA 46.12; see the extensive analysis of the manuscript and its calligraphers by Marianna Shreve Simpson, 'The Production and Patronage of the *Haft Aurang* by Jami in the Freer Gallery of Art,' *Ars Orientalis* 13 (1982): 93–119; Simpson, *Haft Awrang*.
 79. The standardness of their style is clear from the fact that so far it has been impossible to attribute the seventh poem, *Khiradnama-yi iskan-dari*, which has lost its colophon, to any particular calligrapher, either one of the five who signed the other poems or even another hand.
 80. Biographies in Bayani, *Ahval wa athar-i khushnvisan*, 518–38, no. 709; Elr, 'Emad Hasani,' Francesca von Habsburg, *The St Petersburg Muraqqa': Album of Indian and Persian Miniatures from the 16th through the 18th Century and Specimens of Persian Calligraphy by 'Imad al-Hasani* (Milan, 1996), 39–46; Derman, *Art of Calligraphy*, 220.
 81. Academy of Sciences E/14; the album has been reconstructed in Habsburg, *St Petersburg Muraqqa'*. Purchased in Tehran in 1909 for Tsar Nicholas II, the album seems to have been compiled to contain the substantial collection of calligraphy and painting owned by an influential individual named Mirza Mahdi, probably to be identified as Mirza Muhammad Mahdi Khan Astarabadi, the historiographer, secretary, and companion to the Afsharid ruler Nadir Shah. By the time the binding for the volume was completed in 1147/1738–9, the selection of works to be included had increased substantially, and the album now

- contains 198 calligraphic specimens and 34 exercises (*mashq*) produced by Mir 'Imad at Aleppo, Qazvin, Isfahan, and Farahabad between 1595 and 1615.
82. IUL 1427; Derman, *Art of Calligraphy*, no. 69. The album of 23 *qit'as*, now in the Yildiz section of the library, was one of a pair acquired in 1805 as part of the legacy of Mehmed Amin Efendi, son of the Ottoman master of *nasta'liq*, Shaykh al-Islam Vali al-Din Efendi. This piece was illuminated in 1198/1784 by Salih, the Ottoman illuminator whose name appears in a cloud that projects at the right in the signature of Mir 'Imad in the triangle at the bottom.
83. A similar term is used in Turkish: *karalama*, from the noun *kara* (black). The same contrast is expressed in Arabic, where the noun *musawwada*, from the verb *sawwada* (to blacken), meaning the black practice sheet, is juxtaposed to *mubayyada*, from the verb *bayyada* (to make something white, clean, or perfect), the white fair copy.
84. London, Khalili Collection, CAL266; Safwat, *Art of the Pen*, no. 15.
85. Mir 'Imad's peititon to join 'Abbas' service is preserved in Paris and reproduced in Fazā'ili, *Atlas-i khatt*, 526.
86. The earliest practice sheet to survive is one by the Ottoman calligrapher Shaykh Hamdallah dated [8]95/[14]89–90; see Şevket Rado, *Türk Hattatları. XV. Yüzuıldan Günümüze Kadar Gelmiş Ünlü Hattatların Hayatları Ve Yazılarından Örnekler* (Istanbul, 1985), 53.
87. On Riza (d. 1635), the leading artist under Shah 'Abbas, see Sheila R. Canby, *The Rebellious Reformer: The Drawings and Paintings of Riza-yi 'Abbasi of Isfahan* (London, 1997). On Mu'in (1635–97), see Massumeh Farhad, 'The Art of Mu'in Musavvir: A Mirror of His Times,' in *Persian Masters: Five Centuries of Painting*, ed. Sheila R. Canby (Bombay, 1990), 113–28. Mu'in's drawings like a tiger attacking a youth (BMFA) are further personalized by long inscriptions recounting how and why the artist composed them; see Massumeh Farhad, 'An Artist's Impression: Mu'in Musavvir's *Tiger Attacking a Youth*,' *Muqarnas* 9 (1992): 116–23; Sheila S. Blair and Jonathan M. Bloom, *The Art and Architecture of Islam, 1250–1800*, The Pelican History of Art (London and New Haven, 1994), fig. 224.
88. Geneva, Collection of Prince Sadruddin Aga Khan, Calligraphy II. Anthony Welch, *Collection of Islamic Art: Prince Sadruddin Aga Khan* (Geneva, 1972–8), vol. 2, appendix; Anthony Welch, *Shah 'Abbas*, no. 17; Layla S. Diba (ed.), *Royal Persian Paintings: The Qajar Epoch, 1785–1925* (New York, 1998), no. 3.
89. R. W. Ferrier, 'The Terms and Conditions under which English Trade was Transacted with Şafavid Persia,' *Bulletin of the School of Oriental and African Studies* 48, no. 1 (1986): 48–66.
90. *Dastur-i Dabiri* 13, cited in Hanaway and Spooner, *Reading Nasta'liq: Persian and Urdu Hands 1500 to the Present*, 10. On the manual itself, see *Elr*, 'Dastūr-i dabīrī.'
91. For an outline of the script's development, see Fazā'ili, *Atlas-i khatt*, 606–40; *Elr*, 4:699–702. For a discussion of its inherent qualities and lessons on how to read it, see Hanaway and Spooner, *Reading Nasta'liq*.
92. Hanaway and Spooner, *Reading Nasta'liq*, 14–20, listed more than fifty ways in which the regularly non-connected letters are distinguished in *shikasta*.
93. Fazā'ili, *Atlas-i khatt*, 613–14. According to Annemarie Schimmel, 'Poetry and Calligraphy: Thoughts about their Interrelation in Persian Culture,' in *Highlights of Persian Art*, ed. Richard Ettinghausen and

- Ehsan Yarshater (Boulder, CO, 1979), 202 and n. 76, the first surviving example of its use in poetry occurs in the *divan* of Fani, penname of the Indo-Persian poet and scholar Shaykh Muhammad Muhsin ibn Hasan Kashmiri (d. 1670–1), who was attached to the courts of Shah Jahan and his heir apparent Dara Shikoh (on the poet, see *Elr*, 'Fanā'). This does not mean, however, that *nasta'liq* was an Indian invention.
94. See, for example, a page by him dated 1059/1649 and 1078/1667 reproduced in Fażā'ilī, *Atlas-i khatt*, 609; *Elr*, 'Calligraphy,' pl. lxiv.
95. As in the one by Murtadaquli Khan Shamlu in the upper left of the previously cited example.
96. Biography in Bayani, *Ahval wa athar-i khushnvisan*, 414, no. 575 and 1262–4, no. 89.
97. Safwat, *Art of the Pen*, no. 51
The text reads:
 ... [one word] *dūstā* 'ināyat ... [one word] *nāmī-rā hargiz*
az kamtarīn-i bandagān bi-hīch-vajh min al-vujūh az mukhlis
darīgh nadāshta
ba-har nahv-i kih mīsizad kamīn būda bāshad faqīr 'abd al-
majīd sana 1183.
 O [one word] friend, never having withheld [your] famous favor from the least of your servants in any way, shape, or form from this devoted one, in every manner that is appropriate I am the least [of your servants], 'Abd al-Majid, 1183/1769–70.
- I thank Wheeler Thackston for help reading this specimen, and many others.
98. On this type of poetry, which is undergoing something of a re-evaluation, see Paul E. Losensky, *Welcoming Fighānī: Imitation and Poetic Individuality in the Safavid-Mughal Ghazal* (Costa Mesa, CA, 1998), and most recently, Shamsur Rahman Faruqi, 'A Stranger in the City: The Poetics of *Sabk-e Hindi*,' *Annual of Urdu Studies* 19 (2004): 1–93, available on-line at www.urdustudies.com.
99. HUAM 1958–212, gift of John Goelet; Anthony Welch, *Calligraphy*, no. 65.
100. The best known is the secretarial style (*shikasta-yi tahriri*) developed by poets and statesmen of the late Qajar period. The poet and journalist Abu'l-Qasim Qa'im-maqam Farahani, known as Adib al-Mamalik Farahani (1860–1917), who also simplified the Persian prose of his time, simplified *shikasta* by assimilating elements of *shikasta* to those of *nasta'liq*. The soldier and statesman Hasan 'Ali Khan Amir Nizam Garrusi (1820–1900) showed how *shikasta* could be thinner and neater. The secretarial style was faster to write and read, but less artistic. See *Elr*, 'Calligraphy,' pl. lxvi.
101. Diba, *Royal Persian Paintings*.
102. See Kalhor, *Mirza Mohammad Reza* (Tehran, 1371/1993). His biography is given in Bayani, *Ahval wa athar-i khushnvisan*, 731–5, no. 1050.
103. He used a sharp hunting knife to cut the reed pen, trimming only the nib but not the trunk of the pen. He shortened the crack in the nib, inserting a hair inside so that ink might flow more smoothly. In the days before fountain pens had been invented, he also devised a type of steel nib. His design was exported and produced abroad, and samples then imported back into Iran.
104. Brief biography in Bayani, *Ahval wa athar-i khushnvisan*, 226–7, no. 359.

105. The finest is a copy of *Fays al-dumu'*, a treatise about the martyrdom of Imam Husayn composed by Muhammad Ibrahim Nawwab Tihrani, dated Rajab 1283/November–December 1866; Tehran, National Library 682; see Badri Atābay, *Fihrist-i kutūb-i dīnī wa madhhabī-i khaṭṭī-yi kitābkhāna-yi saltānatī* (Tehran, 1352/1974), 393. Folio 2b bears the seal impression of Nasir al-Din Shah.
106. Many illustrated in *Kalhor*.
107. For a brief introduction to the technique, see Jane Turner (ed.), *The Dictionary of Art* (London: Macmillan Publishers Limited, 1996), 'Lithography.'
108. B. W. Robinson, 'The Tehran Nizami of 1848 and Other Qajar Lithographed Books,' in *Islam in the Balkans/Persian Art and Culture of the 18th and 19th Centuries*, ed. Jennifer M. Scarce (Edinburgh, 1979), 61–74; Ulrich Marzolph, 'Bahram Gūr's Spectacular Marksmanship and the Art of Illustration in Qājār Lithographed Books,' in *Studies in Honour of Clifford Edmund Bosworth, Volume II: The Sultan's Turret: Studies in Persian and Turkish Culture*, ed. Carole Hillenbrand (Leiden, 2000), 331–47; Ulrich Marzolph, *Narrative Illustration in Persian Lithographed Books*, Handbuch der Orientalistik (Leiden, 2001).
109. Bayani, *Ahval wa athar-i khushnivisan*, 435, no. 614.
110. Bayani, *Ahval wa athar-i khushnivisan*, 436, no. 617.
111. Copies of the Koran written in *naskh*, for example, typically had marginal commentaries written in *nasta'liq*.
112. See Sheila R. Canby, 'The Pen or the Brush? an Inquiry into the Technique of Late Safavid Drawings,' in *Persian Painting from the Mongols to the Qajars, Studies in Honour of Basil W. Robinson*, ed. Robert Hillenbrand (London, 2000), 75–82, on the difficulties of distinguishing brushwork from that done by the pen.
113. Istanbul, IUL, F1426, folio 46a; published in Abdelkebir Khatibi and Mohammed Sijelmassi, *The Splendour of Islamic Calligraphy*, trans. J. Hughes and E. J. Emory [London, 1995], 108–9). The album contains mainly works in *nasta'liq* by noted Safavid masters, including eighteen undated calligraphic specimens by Shah Mahmud Nishapuri (see list in Simpson, *Haft Awrang*, 394–5), and the title page reads 'The Shah Mahmud Nishapuri Albums' (*muraqqa'at*). Although the dedication medallion is blank, the album seems to have been compiled and bound in a splendid tortoiseshell and silver cover for the Ottoman sultan Sulayman c. 1560 (Esin Atıl, *The Age of Sultan Süleyman the Magnificent* [Washington, DC, 1987], no. 49; J. M. Rogers and R. M. Ward, *Süleyman the Magnificent* [London, 1988], no. 53). Given the name on the title page and the number of signed specimens at the beginning of this album, the zoomorphic composition is sometimes (as in Khatibi and Sijelmassi, 108–9) attributed to Shah Mahmud Nishapuri, but this is not accurate. Not only do the pages around the cut-out zoomorphic composition contain various drawings in the *saz*-style and a paper-cut-out of a garden, but this page is also signed by another calligrapher.
114. The opening verse, *nad 'aliyyan muzahhir al-'aja'ib*, forms his face and head. The second verse, *tajaddahu 'awnan laka fi'l-nawa'ib*, begins along the bottom of his lower jaw and fills his mane, left front paw, and chest. The third line, *kull hamm wa-ghamm sayanjali*, circles his right front paw and fills his stomach. The final line of the prayer, *biwilayatik ya 'ali ya 'ali ya 'ali*, fills the rear of his body, top of his back, and his tail. The word *hamm* (care) seems to be written backwards along the right side of the lion's right front leg.

115. Assadullah Souren Melikian-Chirvani, *Islamic Metalwork from the Iranian World 8–18th Centuries* (London, 1982), nos. 118–20; Linda Komaroff, *The Golden Disk of Heaven: Metalwork of Timurid Iran*, Persian Art Series (Costa Mesa, CA, 1992), Appendix II, nos. 3, 4, and 7. Qadi Ahmad (*Gulistan-i Hunar*, 85; *Calligraphers and Painters*, 132–3) was aware of the Herati connection, for he attributed the invention of zoomorphic writing to Majnun (read by Minorsky as Mahmud) Chapnivis (the left-handed or the one who writes in reverse), a calligrapher from Herat who had a fine *nasta'liq* hand and worked for Sam Mirza, governor of Khurasan under the Safavid shah Tahmasp at the beginning of the sixteenth century. Writing under the penname Majnun, he was also a poet and author of a treatise on calligraphy. According to Qadi Ahmad, Majnun invented a style of writing in which combinations of letters formed images of men and beasts. As an example, the Safavid chronicler cites a hemistich about sugar and the lips of the beloved penned in the shape of three or four men standing one under the other. As with other so-called calligraphic inventions, we should interpret Qadi Ahmad's text as meaning that this style of zoomorphic writing was codified at this time.
116. On other metalwares or calligraphic specimens (*qit'a*) with this prayer (e.g., Khatibi and Sijelmassi, *The Splendour of Islamic Calligraphy*, 110), the calligrapher usually added his name or the date following the prayer.
117. Other works in this album are signed Mir 'Ali and 'Ali *al-katib*, the latter dated 946/1539–40; Rogers and Ward, *Süleyman the Magnificent*, 117.
118. Springfield, MA, Museum of Fine Arts 59 Ms47; Sheila S. Blair and Jonathan M. Bloom (eds), *Images of Paradise in Islamic Art* (Hanover, NH, 1991), no. 3.
119. Cambridge, MA, HUAM 1958–197; Annemarie Schimmel, *Islamic Calligraphy*, Iconography of Religions XXII, 1 (Leiden, 1970), pl. 46; *The Arts of Islam*, no. 641; Anthony Welch, *Calligraphy*, no. 71. A similar image with confronted cocks signed by Mishkin Qalam in 1307/1889–90 is illustrated in 'Islamic Calligraphy: An Outline [La Calligraphie Islamique: Un Aperçu],' in *Calligraphie Islamique: Textes Sacrés et Profanes/Islamic Calligraphy: Sacred and Secular Writings* (Geneva, 1988), no. 49.
120. The earliest surviving examples of micrography date from the late ninth, tenth, and eleventh centuries and were made for the Karaites, a Jewish sect that denies the Talmudic rabbinical tradition, recognizing the Scriptures as the sole and direct source of religious law. See Leila Avrin, *Hebrew Micrography* (Jerusalem, 1981). The Karaites flourished in Egypt during the Fatimid period, and many, if not all, of these manuscripts can be attributed there. In some examples, the *masorah*, the concordance-like notes that appeared in the margins of manuscripts of the Pentateuch and the Bible, were written in figural or architectural shapes. In other cases, notes as well as psalms and dedications were combined with painted ornament into full-page compositions. For example, in a double-page frontispiece from a parchment copy of the Pentateuch transcribed c. 1010 (Gabrielle Sed-Rajna, *L'Art juif* [Paris, 1975], 176–7), the tiny words are arranged to form the contour lines of a checkerboard and a rosette. The texts chosen usually corresponded to the subject illustrated (Rachel Milstein, 'Hebrew Book Illumination in the Fatimid Era,' in *L'Egypte fatimide: son art et son histoire*, Actes du

colloque organisé à Paris les 28, 29 et 30 mai 1998, ed. Marianne Barrucand [Paris, 1999], 429–40). Since many features in these Hebrew manuscripts – from the codex format to vocalization, numbering of verses, and decorative devices used as section markers, titles, and space fillers – derive from the Koranic tradition, it seems likely that Hebrew micrography also derived from examples in Arabic manuscripts that have not survived. In later centuries calligraphers penning Arabic script took micrography one step further so that the words composed of small letters form not only designs but further words. Such examples too may have been made before the age of empires, but none has survived.

121. Tehran, Gulistan Library, no. 1423; Atabay, *Fihrist-i qur'anha-yi khatti*, no. 183.
122. As on a scroll in the Tareq Rajab Museum; Nabil F. Safwat, *The Harmony of Letters: Islamic Calligraphy from the Tareq Rajab Museum* (Kuwait, 1997), 87.
123. Scrolls made in Iran were often inscribed with specifically Shi'ite ones, notably the Nad 'Ali found, for example, on a scroll in the Khalili Collection (CAL3; Safwat, *Art of the Pen*, no. 126).
124. Texts include the Throne Verse (2:256), believed to give protection against misfortune, and the Light Verse (24:35: 'Light upon light. God guides whom He will to his light; God sets forth parables for men, and God knows all things'), found on scrolls in the Tareq Rajab Museum in Kuwait; Jehan S. Rajab, et al., *The World of Islam: The Arts of the Islamic World from the Early 18th to the End of the 20th Century* (Keszthely, 2002), no. 138; Safwat, *Harmony of Letters*, 87.
125. These scrolls have been more popular as collectors items in recent times, and several examples have turned up in auction catalogues in recent decades.
126. IUL, F1426; Derman, *Art of Calligraphy*, no. 41.
127. Qadi Ahmad, *Gulistan-i Hunar*, 62 and 78–79; Qadi Ahmad, *Calligraphers and Painters*, 106 and 126. Zayn al-Din Mahmud (d. 1519?) is regularly mentioned in the various album prefaces; see Thackston, *Album Prefaces*, 21, 25, 33, and 36. See the brief biographies in Bayani, *Ahval wa athar-i khushnivisan*, 864–6, no. 1293; Derman, *Art of Calligraphy*, 210.
128. London, Khalili Collection, CAL3; Safwat, *Art of the Pen*, no. 52. The text contains the seven verses of the Fatiha mounted on nine separate boards, each measuring 35 cm in height and containing a phrase or two written in a large *nasta'liq*. Reserve cartouches at the end of the words on four folios bear the signature of the calligrapher. He is probably to be identified with Muhammad Kazim Walahi-yi Isfahani, a master of *nasta'liq* and *shikasta* who died in 1229/1813–14. For a biography, see Bayani, *Ahval wa athar-i khushnivisan*, 823–4, no. 1215.
129. As in a verse by Hafiz done in grisaille attributed to the second half of the nineteenth century and the hand of Husayn *zarin qalam*; see Falk, *Treasures*, no. 179; 'Islamic Calligraphy: An Outline [La Calligraphie Islamique: Un Aperçu],' no. 35.
130. Biographies in M. A. Karimzāda Tabrizī, *Ahwāl wa āthār-i naqqāshān-i qadīm-i īrān* [The Lives and Art of Old Painters of Iran] (London, 1985), no. 131; Turner, *DoA*, 'Isma'il Jalayir.' A lacquered pen case and two oil paintings by him are illustrated in Diba, *Royal Persian Paintings*, nos. 84–6.
131. Geneva, ex-Khosrovani Collection; Falk, *Treasures*, no. 177. The painting was sold at Sotheby's on 12 October 2004, lot 31.

132. On this phenomenon of 'retro-inking,' see Vlad Atanasiu, 'Le retroencrage: déduction du ductus d'une écriture d'après l'intensité de l'encre,' *La Gazette du Livre Médiéval* 37 (Autumn 2000): 34–42.
133. Jennifer M. Scarce, 'The Role of Architecture in the Creation of Tehran,' in *Téhéran: Capital Bicentenaire*, ed. Chahryar Adle and Bernard Hourcade (Paris and Tehran, 1992), 73–94.
134. On popular art in the nineteenth century, see the essay by Peter Chelkowski, 'Popular Arts,' in *Royal Persian Paintings: The Qajar Epoch, 1785–1925*, in *Royal Persian Paintings*, ed. Layla S. Diba (New York, 1998), 90–7.
135. On the institution of the *ta'ziya*, see the papers given at an international symposium on the subject held at Shiraz in August 1976 in Peter Chelkowski (ed.), *Ta'ziyeh: Ritual and Drama in Iran* (New York, 1979). On its role in narrative painting, see Peter Chelkowski, 'Narrative Painting and Painting Recitation in Qajar Iran,' *Muqarnas* 6 (1989): 98–111. On its varying relationship to Westerners, see Jean Calmard, 'Muharram Ceremonies and Diplomacy (a Preliminary Study),' in *Qajar Iran: Political, Social and Cultural Change, 1800–1925*, ed. Edmund Bosworth and Carole Hillenbrand (Edinburgh, 1983), 213–28.

The Ottomans in Anatolia, the Balkans, and the Eastern Mediterranean

LIKE THEIR CONTEMPORARIES to the east, calligraphers working around the Mediterranean during the period of Ottoman rule refined and perfected the scripts used earlier in the region (see Chapter 9), both the round scripts known as the Six Pens used for manuscripts and calligraphic specimens and the hanging scripts used for documents and poetry. Of the Six Pens, *naskh* (Turkish *nesih*) and *thuluth* (Turkish *sülüs*) became by far the most popular, emerging as the canonical pair for text and display. The others waned in popularity and were restricted to certain situations. *Riqa'* (Turkish *rikâ'*), for example, which had often been used for signatures, became the standard script for diplomas and licenses such that it came to be known as *khatt-i ijaza* (the script of the license). Its larger counterpart *tawqi'* (Turkish *tevki'*) was used for signatures in larger compositions.

From the sixteenth century Ottoman calligraphers perfected the large form of *thuluth* (Arabic *jali*; Turkish *celi*), suitable for architectural designs and individual compositions that could be mounted, framed, and hung on walls like European paintings. The splendid panels (Turkish *levha*; pl. *levhalar*) produced during the eighteenth and nineteenth centuries are perhaps Ottomans artists' most significant contribution to the art of Arabic calligraphy. The designs are visually stunning, and using pierced drawings or stencils (Arabic *qalib*; Turkish *kalıp*), they could be reproduced in multiple media, including textiles. Such inscribed cloths were treasured as grave covers, and these inscriptions became the sole decoration on the *kiswa*, the cloth covering the Ka'ba in Mecca.¹

Along with the round scripts, Ottoman calligraphers also used the hanging scripts, which took on names different from the ones used in Iran. The hanging script known in Persian as *nasta'liq* became known in Turkish as *ta'liq*, which in turn became known as *divani* (literally, belonging to the chancery), since its use was restricted to the chancery. Scribes embellished many of the official documents written in *divani* with the sultan's personal emblem (*tughra*), and the design and execution of these emblems became an art form in itself.

Both round and hanging scripts were passed from master to pupil following a traditional system of education, in operation at least since the fifteenth century, in which a pupil studied and received his

license (Arabic *ijaza*; Turkish *icazet*) from a particular teacher. These masters were generally at the top of the hierarchy of the many hundreds of calligraphers at work in Ottoman times. Supported through stipends provided in return for their services in the palace or in higher religious schools, these calligraphers also executed special commissions for the wealthy. As in Iran, the names of a few stars dominate the firmament – notably Shaykh Hamdallah (1436–1520), Ahmad Karahisari (1469–1556), and Hafiz Osman (1642–98) – but this group included many more calligraphers drawn from a wide spectrum, ranging from the ulema and the chancery to politicians and artisans.²

This system of transmission from master to pupil has continued to modern times,³ and as a result, the history of Ottoman calligraphy – like that in the Iranian lands – is often seen as a biographical succession of masters.⁴ This prosopographical approach mirrors that used by the Ottoman chroniclers themselves. For example, Sulayman Sa'd al-Din ibn Muhammad Amir ibn Muhammad Mustaqim, known as Mustaqimzada (d. 1788), amassed biographies of all calligraphers known to him through extant works or personal experience in his treatise entitled *Tuhfat-i khattatin* (The Pick of Calligraphers).⁵ Contemporary writers in the Ottoman provinces, such as the Egyptian lexicographer Muhammad Murtada al-Zabidi, worked within the same theoretical framework but with a slightly different cast of characters.⁶

The master–pupil system of transmission also means that many of the materials and tools used in the late Ottoman period have been preserved and are still used in modern times.⁷ As elsewhere, calligraphers used reed pens of varying sizes. There were two main types: a larger one, with a nib approximately 2 mm wide, for larger scripts, and a smaller one whose nib was half the width (1 mm), for their minuscule counterparts.⁸ Special pens were also adopted for special purposes. For long texts, calligraphers used harder pens made from the thorn of a palm tree native to Indonesia and Malaysia. Known as Javanese pens (Turkish *cava kalemliri*), they were introduced by Javanese Muslims coming on pilgrimage to Mecca and adopted by Ottoman calligraphers in the early nineteenth century. To write the splendid inscriptions in *jali* script, calligraphers used wooden pens with a flat nib (Turkish *ağaç* or *tahta kalemler*).

We know something about how calligraphers were taught in the Ottoman lands, thanks to a unique treatise in Ottoman Turkish on the rules of *thuluth*. Copied a number of times and even printed by lithography in Damascus around the turn of the nineteenth to twentieth century, it has recently been identified as an augmented translation of an unknown Persian original by the Ottoman calligrapher Muhammad ibn Taj al-Din known as Tajzada, chief calligrapher (*ra'is al-kuttab*) and scribe in the imperial chancery (*nisançi*) until his death in 996/1587.⁹ The treatise describes the various forms taken by each letter (how many dots long each stroke must be and so forth), and various copies of the treatise include illustrations of

Figure 11.1 *Illustration of the letter ya' from an annotated copy of Tajzada's sixteenth-century treatise on thuluth.*

The text describes how to make the letter *ya'* and, to help his students, in this copy the teacher drew out the letters, indicating the ratio of parts by various dots and adding two glosses that note that the letter is a compound, and that the bowl is the place where the water should not run out.



the individual letters, following the system already used by al-Ravandi at the turn of the twelfth to thirteenth century (Figure 6.11), as well as glosses.¹⁰ This example from a manuscript in the collection of the University of Michigan (Figure 11.1) shows the letter *ya'*. The text describes the letter thus:

Now the head of a *ya'* must be analogous to the head of a *kaf*. But it must be one dot less than the head of a *kaf*. Its second line [or stroke] must be extended towards the right for two dots and one half. But it must have a belly, so that if you were to fill it with water, the water would stay [i.e., it would not run out]. The whole thing should be like a reverse *dal*. The masters of old have written the place to fill with water vertically, so that water would not stay [i.e., it would run out]. Like this. And its belly should be like that of a *sin*.

To make the text clearer, the commentator added a drawing with appropriate dots and two glosses, the one on the right stating that this letter is also called a compound (*mürekkebi dahi dirlir*) and the one on the left that this is the place where water must stay (*su duracak yer budur*). The drawings and glosses differ in the individual manuscripts

and must have been added by the individual copyists/instructors as aids in teaching students.

Such treatises were needed, as copying was big business in Ottoman times. The usually reliable Bolognese scholar Luigi Ferdinando Marsigli, who was captured by the Ottomans, sold to a pasha and redeemed in 1682, estimated that there were eighty to ninety thousand copyists working in Istanbul.¹¹ Ottoman calligraphy is thus copious. It is also well preserved. The royal chancery, which had been established in Istanbul following the Ottoman conquest of the city in 1453, continued to operate until the last ruler was deposed in 1924. As a result, many manuscripts, calligraphic specimens, and documents are preserved in the archives there, notably in the collections of the Topkapı Palace. The Ottoman sponsorship of libraries also encouraged the widespread preservation of manuscripts and books, as has the continuous tradition of teaching.¹² Fine examples are also preserved in private collections, many published in splendid catalogues, which often provide the best illustrations of the subject.¹³ Ottoman calligraphy is notable for its discipline and clarity. Given the repetition of the same styles and formats over many centuries, it can become somewhat rote or wooden, but in the hands of the masters its elegance can approach the sublime.

The canonization of *naskh* as text script

In the latter part of the fifteenth century, the imperial Ottoman studio at Istanbul burgeoned. Many calligraphers worked there. By far the most famous was Hamdallah ibn Mustafa Dede, whose Sufi lineage earned him the title shaykh.¹⁴ Court documents, chronicles, and signed works allow us to piece together his long career, particularly under the patronage of the sultan Bayazid II (r. 1481–1512), first in Amasya and then in Istanbul.¹⁵ A prolific copyist,¹⁶ Hamdallah was, like most calligraphers of his day, a master of many scripts. A scroll identified as 'in the writing of the late shaykh' contains specimens of the Traditions written in the Six Pens, followed by Awhad al-Din Kirmani's poems written in a thin *nasta'liq*.¹⁷ The six scripts are identified by small labels, some with names like the ones used by the Mamluk calligrapher al-Tayyibi in the calligraphic treatise he had compiled for the Mamluks in 908/1503 that was later deposited in the Ottoman archives (see Chapter 8).¹⁸ Another album by Shaykh Hamdallah in the same collection contains a similar selection of Traditions juxtaposing different scripts in different sizes and sometimes at different angles,¹⁹ and isolated specimens and pages are also preserved in other collections.²⁰ To perfect his script, Shaykh Hamdallah also made practice sheets, which were similarly mounted and collected by later connoisseurs. In addition, Shaykh Hamdallah used the round scripts, notably *thuluth*, in designing architectural inscriptions, as in the grand inscriptions over the entrance portal and around the mihrab in Bayazid's mosque in Istanbul, inaugurated in 1505.²¹

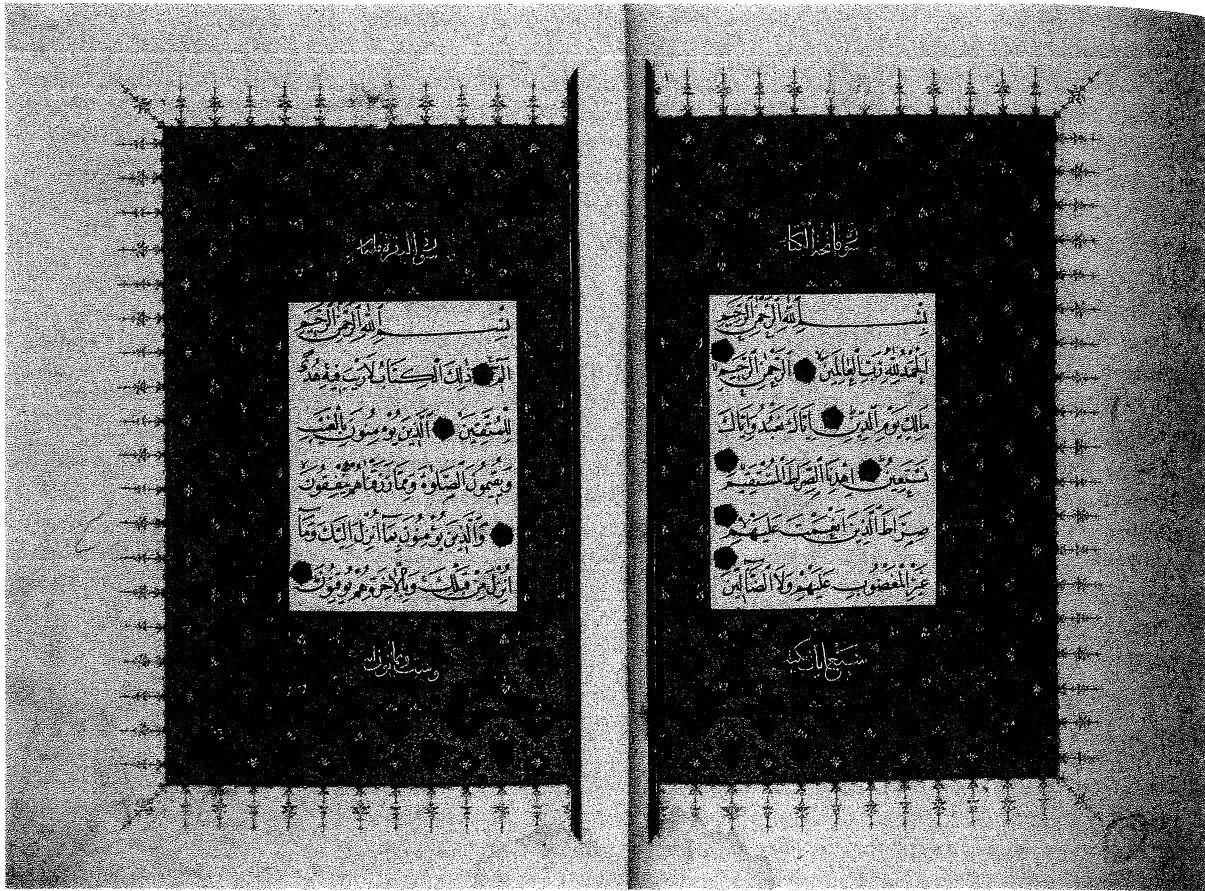


Figure 11.2 Opening double page with Suras 1–2:4 from a single-volume Koran manuscript with eleven lines to the page transcribed by Shaykh Hamdallah in 909/1503–4 and illuminated by Hasan ibn ‘Abdallah.

Shaykh Hamdallah was the most famous calligrapher working for the Ottomans in the late fifteenth and early sixteenth centuries. He is said to have produced almost fifty copies of the Koran. This is one of the finest, probably made for Sultan Bayazid himself. For it, Shaykh Hamdallah used a fine and even *naskh* with long tails that provide a sublinear rhythm. His style of *naskh* set the model for future generations.

Of all these scripts, the one that had the most impact was Shaykh Hamdallah’s *naskh*, a style readily seen in his Koran manuscripts (or parts of them).²² Although the colophons do not always explicitly say that these manuscripts were copied for Bayazid, their extraordinary quality suggests royal patronage. In addition to script and illumination, they are remarkable for their bindings, which mark the triumph of pressure-molding as the principal method of finishing.²³ The finest to survive (Figure 11.2) is a single-volume manuscript transcribed by Shaykh Hamdallah in 909/1503–4 and illuminated by Hasan ibn ‘Abdallah.²⁴ The front page bears a dedication to Bayazid, opening with the words *bi rasm tilawat* (to be read by), a phrase suggesting that this manuscript was a personal copy, not one intended

for donation to the mosque complex that the sultan had ordered built in Istanbul at this time. According to the imperial register of the sultan's acts of beneficence for the year 909/1503-4, on 29 Rajab (17 January 1504) Shaykh Hamdallah received 7,000 *akçe* (silver coins) along with a robe of honor. This enormous sum, worth more than six months' salary as royal tutor, may have been payment for this magnificent codex.²⁵

Each of the 377 large (32 × 23 cm) folios in this magnificent Koran manuscript has eleven lines of *naskh* penned in black ink with details in red. The opening double page (Figure 11.2) is notable for its splendid illumination that encircles smaller blocks containing only five lines of text in the by-now-standard arrangement with Sura 1 on the right facing the beginning of Sura 2 on the left, as indicated by the boxes at the top with the chapter titles in white *thuluth*. Juxtaposed to the lavish illumination, the text, like that by Shaykh Hamdallah's model Yaqut (Figure 7.1), is artfully simple: thin black strokes interrupted only by gold rosettes and red pausal markers.

Shaykh Hamdallah used a compact and graceful *naskh* as text script. The letters are pitched slightly to the left and penned with fluid strokes emphasized by long sweeping tails on *nun* and other letters. These flourishes are especially exaggerated in this manuscript, in which the scooped bowls often encircle the next word and even extend into the next verse. They are juxtaposed by very short tails on other letters, notably final *mim*, as in the basmala (Figure 11.2a). The extended bowls provide a strong sublinear rhythm that leads the eye across the page, as do the long diagonal strokes for *fatha* above the line. The fluidity is underscored by occasional unauthorized connections, as in the *alif* to *lam* in the word *bi'l-akhira* in the last line of the left page (Figure 11.2b). This script is elegant and flowing, but Shaykh Hamdallah's hand could vary slightly from manuscript to manuscript, and other fine copies of the Koran penned by him in these years have slightly different layouts and even longer bowls on some letters.²⁶

The style of *naskh* canonized by Shaykh Hamdallah had a long shelf life. His style passed through his family,²⁷ and it became such an icon that virtually all Ottoman calligraphers trace their lineage back to this master, both verbally and visually.²⁸ We can see how popular Shaykh Hamdallah's *naskh* was in his own time from other contemporary manuscripts, not only large copies of the Koran like the ones he penned in *naskh* but also tiny ones written in the so-called dust script (Arabic *ghubar*, dust; modern Turkish *gubari*, dust-like).²⁹ Measuring a mere five or six centimeters high, these small manuscripts are dubbed *sanjak*, as they were made to be encased in boxes and attached to a battle standard (*sanjak*). Often octagonal, they contain the full text packed into several hundred folios with some fifteen or twenty lines per page. Given their function as apotropaic objects to ward off injury in battle, many became damaged and water-stained. Few are signed or dated, and most can



Figure 11.2a



Figure 11.2b

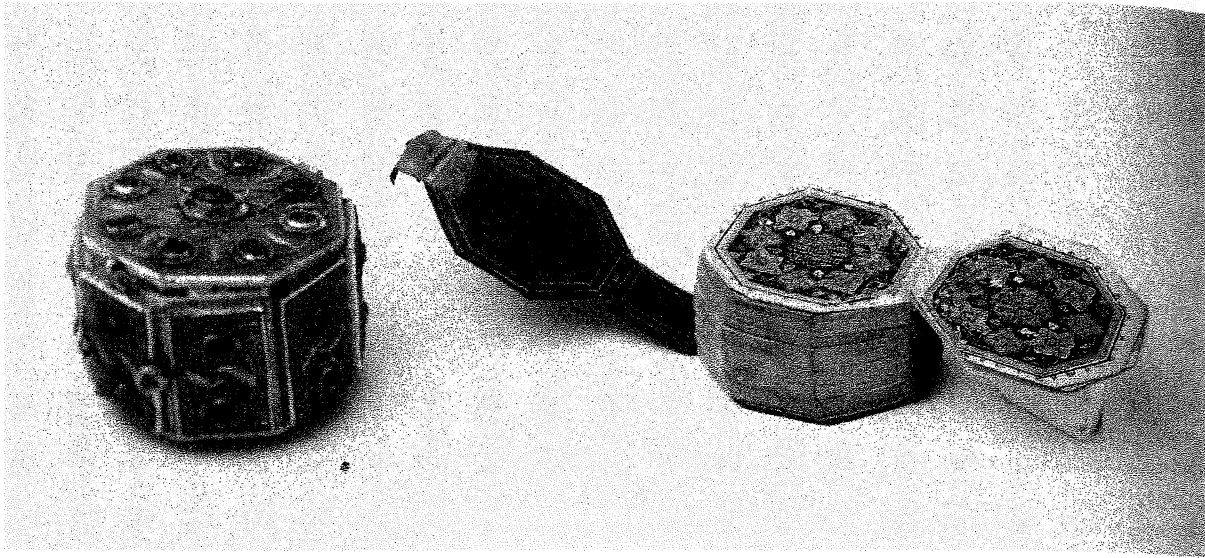


Figure 11.3 Jade case and opening double page in a single-volume Koran manuscript transcribed by Ibn Halul Muhammad Zahir in 978/1570-1.

A tiny Koran manuscript like this one is known as *sanjak* (battle standard), as the manuscript was often encased in a box and carried on a battle standard. Despite its small size, it is quite readable. Most are not signed and can be dated only by comparison to other larger works, but a few of the finest were made for the court. This manuscript, for example, was set in a gem-studded jade binding and probably intended for the Ottoman court.

be localized only by comparison to other manuscripts signed by well-known calligraphers.³⁰

A handful of *sanjak* Koran manuscripts like this one (Figure 11.3) were made as presentation pieces to the court.³¹ Transcribed by named calligraphers, they are adorned with decorated frontis- and finispieces and set in stunning bindings. This manuscript, for example, was transcribed by one Ibn Halul Muhammad Zahir, who added his name and the date in minuscule script at the bottom of the last page. The royal provenance of this copy is clear from the binding of two hinged jade plaques set with rubies and emeralds in gold mounts and joined by a hasp of gold mounts, a style used to enclose other courtly manuscripts made for Sulayman and his successors.³² The rich illumination shows its royal pedigree as well: framed by the blank margins, the wide colorful bands engulf the text, which has shrunk to a rectangle less than 3 cm on a side or a tenth of the surface available for writing on these already small sheets.

On regular pages in this 288-folio manuscript, Ibn Halul penned fourteen lines to the page in a tiny script derived from the *naskh* canonized by Shaykh Hamdallah but with a more marked slant to the left. Ibn Halul was not as good a calligrapher as his predecessor. His script is jerky and not always controlled. He was not as proficient at

laying out the text as were other calligraphers who penned larger and fancier Koran manuscripts. Thus, on the opening text page, Sura 1, the Fatiha, ends in the middle of the bottom line, and the rest of the line had to be filled with gold illumination and a space filler shaped like a stylized *ha'-ra'* or a proofreading mark (*muqbalā*). The impact of this manuscript comes not from the aesthetics of its calligraphy, but from the calligrapher's skill in condensing the text into as small and rich a format as possible.

Shaykh Hamdallah's style of *naskh* waned in popularity in the late sixteenth and early seventeenth centuries as other scripts, notably the hanging *nasta'liq*, temporarily replaced the Six Pens, but it was revived and streamlined in the late seventeenth century in the hands of a second great master of Ottoman calligraphy: 'Uthman ibn 'Ali, universally known as Hafiz Osman.³³ His father had served as muezzin of the Haseki Sultan Mosque in Istanbul, and as a youth, the calligrapher memorized the Koran, hence his sobriquet *hafiz* (memorizer [of the Koran]). Unlike his predecessor who was closely associated with the patronage of Bayazid, Hafiz Osman worked most of his life freelance.³⁴ His pupils ranged from poor students, for whom he is said to have set aside one day per week, to royalty, culminating three years before his death in his appointment as teacher of Mustafa II (r. 1695–1703) and his son, the future Ahmad III.³⁵

Hafiz Osman began by copying the works of his predecessor, Shaykh Hamdallah. The colophons in his work sometimes read *nuqila 'an khatt hamdallah al-shaykh rahimahu allah* (copied after the hand of Shaykh Hamdallah, may God have mercy on him), used, for example, in his signature to the final *juz'* of a thirty-part Koran copied in 1099/1687–8.³⁶ He then streamlined this type of *naskh* to create his own style by refining the letter shapes, smoothing out the strokes, reducing the number of swooping tails and sub-linear flourishes, and opening up the spaces between letters and words, so that the layout is more compact and regular. He often wrote in a small hand, suitable to the small or medium-sized works he created.

Hafiz Osman used this refined and smooth *naskh* for a variety of works. Some were Koran manuscripts or parts of them.³⁷ Others were calligraphic specimens in which several lines of a small *naskh* were typically juxtaposed to single lines of a larger script, either *muhaqqaq* or *thuluth*. But the most original composition calligraphed by Hafiz Osman in *naskh* is the *hilya* (Figure 11.4), a word literally meaning decoration or adornment and the term used for a verbal description of the prophet Muhammad giving both his physical and his mental characteristics.³⁸ Hafiz Osman designed a distinctive layout for this large composition which measures about half a meter high. He adopted the large roundel, or *shamsa*, containing the dedication at the beginning of a manuscript, but encircled it with a crescent. The text inside contains the description of the Prophet, given on the authority of his nephew 'Ali:

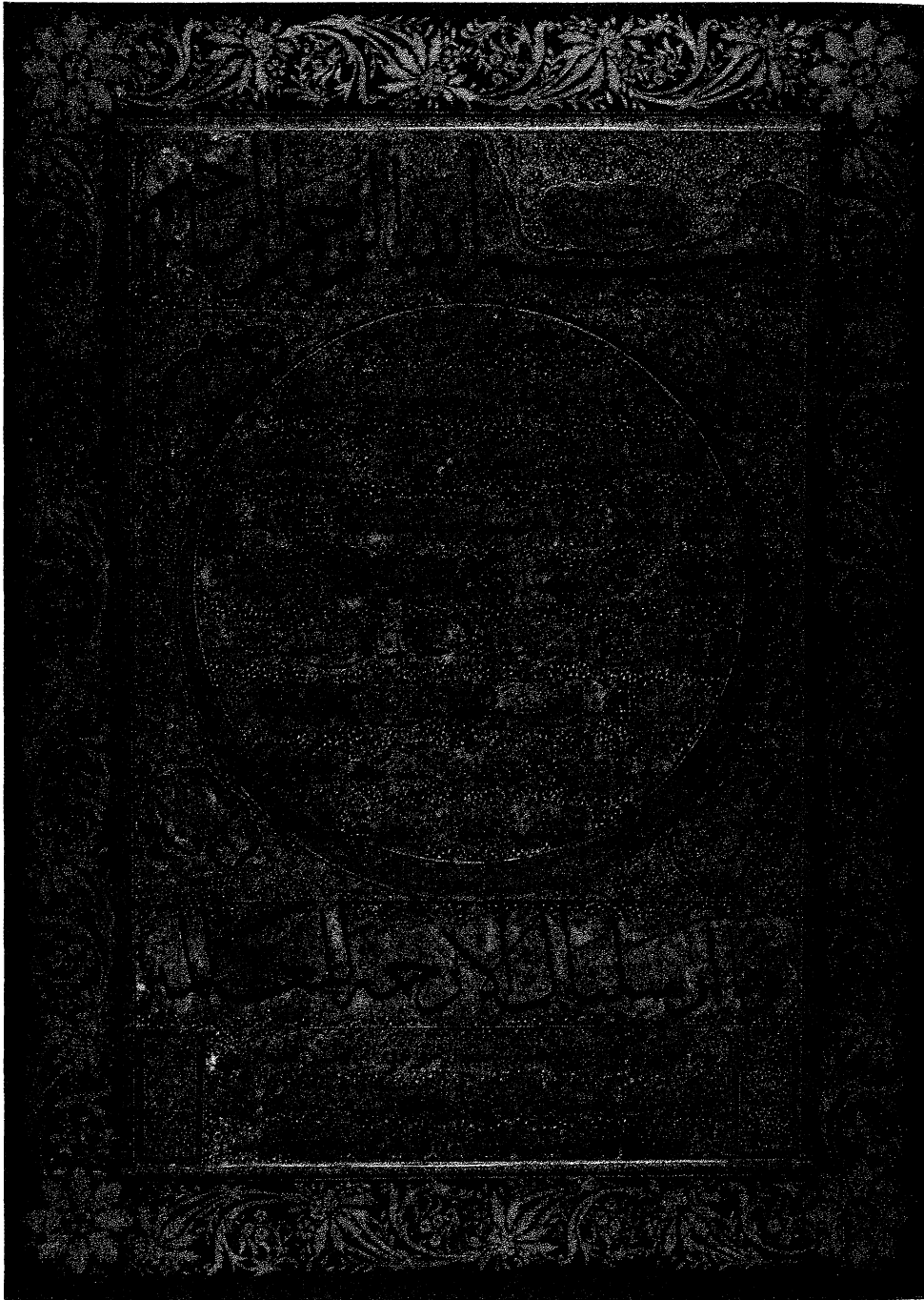


Figure 11.4 *Hilya, or description of the Prophet, penned by Hafiz Osman in 1103/1691–2.*

Hafiz Osman's stunning composition shows the standard arrangement for a *hilya*. The poetic description of the prophet is written in *naskh* in the central medallion, with the names of the four orthodox caliphs written in *thuluth* in the corners. This panel is framed by larger texts in *thuluth*. At the bottom is the calligrapher's signature and date in *riq'a*.

On the authority of 'Ali, who, when asked to describe the Prophet (peace be upon him), would say: He was not too tall nor too short. He was medium-size. His hair was not short and curly, nor was it lank, but in between. His face was not narrow; nor was it fully round, but there was a roundness to it. His skin was white. His eyes were black. He had long eyelashes. He was big-boned and wide-shouldered. He had no body hair except in the middle of his chest. He had thick hands and feet. When he walked, he walked inclined, as if descending a slope. When he looked at someone, he looked at them full-face. Between his shoulders was the seal of prophecy, the sign that he was the last of the prophets.

In the corners around the crescent-shaped roundel, Hafiz Osman inscribed four polylobed cartouches with the names of the orthodox caliphs. A large band at the top of the composition gives the basmala, written in large *thuluth*, as here, or sometimes in *muhaqqaq*, as in the example in Istanbul. This band is mirrored by another band below the roundel in a medium-sized *thuluth*, usually inscribed with Koran 21:107, saying that God sent the Prophet as a mercy for all creatures.

These bands in larger and thicker *thuluth* and *muhaqqaq* provide a fitting frame for the central roundel inscribed in a smaller *naskh*. The projecting tail on the last letter of a band in large script seems to be something of a hallmark of Hafiz Osman's hand, used frequently in his calligraphic specimens.³⁹ They serve to enliven the composition by breaking out of the rigid rectangular frame. The lower band also sets off the rectangular box at the bottom. The first line contains a short prayer for the Prophet, written in a smaller version of the *naskh* used for the description of him. The last two lines contain the signature of the calligrapher Hafiz Osman, written in *naskh*, and the date, 1103/1691-2, written in *riqa*.

Hafiz Osman thus used style of script, size, and thickness to cleverly distinguish the individual parts of the texts, which were written on separate sheets of paper and then pasted together. In doing so, the edges of the writing were sometimes obscured or truncated. Here, for example, the central roundel, projects slightly into the top band with the basmala, obscuring the diagonal stroke for *kasra* and the tail of *mim* below the word *bism*. More dramatically, in mounting, the final *nun* at the end of *lil-'alamin* in the Koranic quotation at the bottom was cut off. These works were clearly treasured, for they were often embellished and refurbished in later times. Some of the illumination on this piece, particularly the gold floral border, was added.

The style of Hafiz Osman set the model for the rest of the Ottoman period. Just as Hafiz Osman had learned his style of *naskh* by copying works by his predecessor Shaykh Hamdallah, so later Ottoman calligraphers copied the format and style of works by Hafiz Osman. Some copied his calligraphic specimens. His arrangement of album pages with a text in small *naskh* sandwiched between larger lines of *thuluth* remained the standard for calligraphers working in the eighteenth and

nineteenth centuries.⁴⁰ His hand was the model not only for manuscripts, but also for the earliest printing by Muslims.⁴¹

Arabic script has been printed for at least five centuries,⁴² but the first attempts were made mainly by non-Muslims for Christian missionaries, and the results were not successful, for reasons of both aesthetics and content. The earliest Arabic printed book to have survived is the *Kitab salat al-sawa'i*, a Book of Hours produced in 1513 at the behest of Pope Julius II by the Venetian master printer Gregorio de' Gregori.⁴³ Although the origin of the typeface is unknown, the book was probably intended for export to Melkite Christians in Lebanon and Syria. Some attempts were made to make the book look pleasing. For example, the text is printed in alternating lines of red and black, and a few pages have borders with flowers and birds. Nevertheless, the type design is inelegant, and the script set in a clumsy and disjointed manner.

Other secular books printed in Arabic were also exported from Europe to the Ottoman domains. An imperial edict issued by the sultan Murad III in Dhu'l-Hijja 996/October 1588 allowed Italian merchants to import books printed in Arabic script.⁴⁴ These books were acquired mainly by bibliophiles, but at least one printed book was commonly used in Ottoman schools: Nasir al-Din Tusi's Arabic redaction of Euclid's geometry, printed at the Medici Press in Rome in 1594.⁴⁵ Students in madrasas needed the treatise on geometry to master astronomy, a required field of study. In order to insure that the imports passed official inspection, a copy of Murad's edict was bound into the volume, one of the earliest examples of Ottoman typography.

Printed editions of religious texts took longer to be accepted. The first printed edition of the Koran had been made by the Venetians Paganino and Alessandro Paganini in 1537–8. Printed as a private edition and probably intended as a commercial venture, the text was thought to have perished in a fire until the 1980s, when a single copy was discovered in the library of the Frati Minori di San Michele ad Isola in Venice.⁴⁶ The small volume (28 × 19 cm) contains 232 pages in a rather stilted typeface with odd proportions, including headings in a larger variety of the same script (Figure 1.8). The slashes for vocalization are particularly large and set at an uneven height. Stretching out words was difficult, and so the lines do not end flush left. More heinous than the formal problems are the faults in spelling: the text does not distinguish between certain letters of the alphabet such as *dal* and *dhal*, perhaps because the printer was following some contemporary Arabic vernacular.⁴⁷ The edition of the Koran printed in Hamburg by Officina Schultzio-Schilleriana in 1694 was even more disturbing: it was both ugly and full of mistakes. The typeface is bedecked with curliques and fluted serifs. The title page calls the Koran the Islamic revealed law (*al-shir'a al-islamiyya*) and implies that its author was Muhammad.⁴⁸

Muslims themselves were slow to take up printing for a host of reasons. Some were practical, such as the necessity for more

individual sorts, or characters, to print Arabic. A complete font, including vowel marks for recording the Koran and other vocalized texts, runs to more than six hundred, plus huge quantities of leads and quadrats to be placed between vowel marks and lines. The 24-point Arabic font developed for the French Imprimerie Nationale in the nineteenth century filled four cases and contained 710 different sorts.⁴⁹ Insufficient capital and the high price of books also prevented the rapid spread of printing.⁵⁰ Perhaps more importantly, religious motivations played a role in the slow adoption of printing, as the primacy of calligraphy in transcribing the Koran and other holy texts seems to have excluded its use for religious books for a long time. The most vocal objections to printing apparently came from the calligraphers and scribes themselves, who would have been put out of work by mechanical printing. A large and vociferous group, they retained a monopoly on the writing business until the beginning of the eighteenth century.

Nevertheless, the advantages of printing in the rapid dissemination of information slowly impacted the Islamic lands. Jews fleeing Spain set up Hebrew presses at Istanbul in 1493, and the Greek Orthodox Metropolitan founded an Arabic-language press at Aleppo in 1701, but the first Muslim press was founded at Istanbul in 1727 by the Hungarian convert Ibrahim Müteferrika. Before it closed in 1742, it had issued seventeen publications, ranging from printed maps to dictionaries. In compliance with the rescript issued by the Ottoman sultan Ahmad III authorizing the opening of the press,⁵¹ all of Müteferrika's publications were secular works, mainly on history and geography. Circulation was limited (print runs ranged from 500 to 1,000 copies), and prices were high.

Accuracy and appearance were important to Müteferrika. In his 1726 memorandum *Vasilat al-Tiba'a* (The Usefulness of Printing), he noted that books printed in Arabic, Persian, and Turkish in Europe were often full of misspellings and mistakes and that the letters and lines were not easy to read.⁵² He therefore rejected the *maghrabi* font that was typical of European printing, choosing instead a more rounded one.⁵³ The first books issued by his press were, like their European prototypes, rather plain, but from 1732 the publications began to resemble handwritten manuscripts in the Islamic tradition. The written area is set within a frame, and the opening page (Figure 11.5) has the sultan's titles surrounded by a gold roundel similar to the *shamsa* used at the beginning of manuscripts. The script is derived from the clear and readable *naskh* perfected by Hafiz Osman (Figure 11.4), with the letters pitched slightly to the left and occasional sub-linear flourishes. Many conventions from manuscript hands were included, as in the lengthening of the *sin* in *sana* (year) in the cartouche at the bottom (Figure 11.5a), although the numerals 1153 of the date are written below, rather than above, the word. Much more fluid and elegant than the typeface the Paganini had used for their copy of the Koran printed in Venice two centuries earlier (Figure 1.8),

Figure 11.5 Title page of *Tarikh-i Rashid Efendi* printed by Ibrahim Müteferrika at Qustantiniya (Istanbul) in 1153/1740-1.

The Hungarian convert Ibrahim Müteferrika established the first Muslim printing press at Istanbul in 1727. It issued seventeen publications on history and geography. The first volumes were rather plain, but the later ones, like this history of the Ottoman dynasty from 1660, resembled handwritten manuscripts, with rulings, gilt medallions, and a *naskh* script clearly derived from that of Hafiz Osman.



Figure 11.5a



Figure 11.5b



the type is nevertheless somewhat flat and has difficulty accommodating piled-up letters, as in the word *shaykh*, the last word in line four of the oval on the bottom left (Figure 11.5b). To make his printed copies resemble handwritten manuscripts, Müteferrika used traditional bindings, with pressure-molded decoration on the front cover, a fore-edge flap along the back cover, and the name of the book along the spine. When the books were stacked in a pile, only experts could separate printed volumes from handwritten ones.

The type of *naskh* perfected by Hafiz Osman continued to predominate for centuries, and his successors – both famous calligraphers like the brothers Isma‘il Zuhdi and Mustafa Raqim as well as lesser known and less gifted ones – introduced innovations not in style but in layout and decoration. Format was standardized, culminating in the type of small (typically less than 20 by 12 cm) Koran manuscript known as *ayat bar kinar* (literally, a verse on one side; figuratively, a freestanding verse on each side).⁵⁴ These 300-page manuscripts comprise thirty *juz*’, each a single gathering of ten folios. Each page has fifteen lines penned in black *naskh* within a small written area surrounded by wide margins. Reading instructions are added in red; incidentals in white or gold *riqa*’. The format is so uniform that the same page in different manuscripts contains identical text, which always begins and ends with complete verses, hence the name. The layout presented challenges to the calligrapher, who had to squeeze the text in some lines and stretch it out in others, particularly the last words of a *sura*, which had to fill the line in order to make way for a new chapter title and the basmala, each placed on separate lines. Only a few masters of *naskh* script, such as Hasan Riza, successfully transcribed Koran manuscripts in the *ayat bar kinar* format as works of art.⁵⁵ Most were made not for royal patrons and well-to-do connoisseurs like the larger Koran manuscripts penned by Shaykh Hamdallah, but rather more unassuming works designed for *huffaz*, professional Koran reciters, religious men of modest means.

The layout in *ayat bar kinar* manuscripts made it easier to memorize the text by visualizing it as a series of 600 discrete groups of verses, a technique akin to the memory palace that the Jesuit missionary Matteo Ricci taught the Chinese in 1596.⁵⁶ To enhance visual memorization, calligraphers in the eighteenth century went one step further, developing rubrics of coincidence (Turkish *tevafuklu*, from the Arabic *tawafuq*, coincidence), in which similar phrases were written in red on facing pages. To emphasize the corresponding text, the calligrapher manipulated line layout, as in this manuscript penned by Hasan al-Nuri in 1204/1789–90 (Figure 11.6).⁵⁷ In the middle of Sura 26 (al-Shu‘ara; The Poets), the calligrapher arranged four double-page spreads this way. The repeated verses written in black and red on these two pages (verses 174–5 on the left and 190–1 on the right) begin with the words ‘this is a sign’ (*ayat*), a sort of visual pun on the name of the layout, *ayat bar kinar*. To display his prowess in arranging text and manipulating format for visual ends, Hasan Nuri

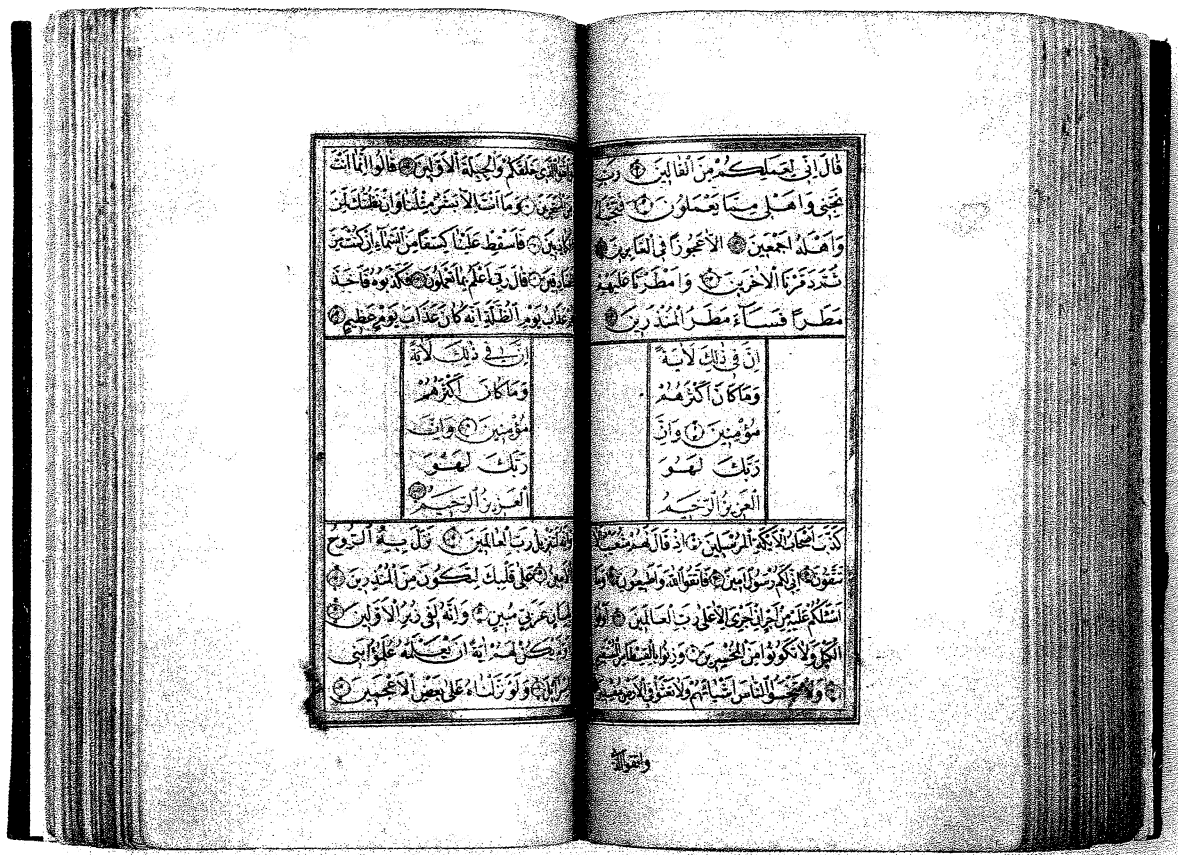


Figure 11.6 Double page with Sura 26:168–98 from a single-volume Koran manuscript with fifteen lines to the page transcribed by Hasan al-Nuri in 1204/1789–90.

This Koran manuscript follows the format known as *ayat bar kanar*, in which each page begins and ends with a complete verse. These small, standardized manuscripts were made for professional Koran readers, as the layout helped memorization through visualization. In the eighteenth century calligraphers developed a special arrangement with rubrics of coincidence (Turkish *tevafulku*), penning identical verses that are repeated on facing pages in black and red. To display his prowess, the calligrapher Hasan Nuri deliberately penned the words differently on each page.

wrote the same passages differently on the two pages, thereby showing off his talent at variation within convention.

In addition to Koran manuscripts, calligraphers in late Ottoman times elaborated classical compositions in *naskh* with new and larger formats that were often framed for hanging in mosques, schools, and private homes. Hafiz Osman's layout of the *hilya* (Figure 11.4), for example, was expanded with an additional section of four or five lines of text to make huge compositions measuring more than a meter high.⁵⁸ Qadi-'askar Mustafa 'Izzet seems to have the first to use the expanded text, which continued to be copied into the early twentieth century in the hands of such late masters as Hasan Riza.⁵⁹ The

floral or geometric illumination also became increasingly elaborate, including tiny lithographed representations of the two holy cites of Mecca and Medina.

Like calligraphers, illuminators also elaborated their work in these late Ottoman Koran manuscripts, and various provincial schools of calligraphy can be distinguished by their style of illumination. One of the most important was the town of Shumen in Bulgaria (known in the Ottoman period as Şumnu or Şumla), home to some thirty calligraphers.⁶⁰ Following the endowment of a post for a calligraphy teacher in the religious complex founded by Sharif Khalil Pasha in 1744, an increasing number of artists produced fine Koran manuscripts over the course of the next century and a half in an almost industrial process. With the advent of lithographed editions, demand declined by the 1870s, and the end of Ottoman rule there in 1878 put a stop to production.

One of the leading figures in the Shumen school was Muhammad Nuri, a calligrapher active from the 1820s to the 1860s. His finest work is a Koran manuscript transcribed there in 1266/1849–50.⁶¹ Instead of the usual one or two double pages of illumination found at the beginning of most Ottoman Koran codices, this one has six double-page spreads that blends Europeanizing elements like rococo scrolls with others drawn from the standard Ottoman repertory. As in other manuscripts, this one also shows a wide range of colors, with white, pink, pale blue, purple, orange, and green enhancing the gold and dark blue found in earlier copies, and large areas of gold or silver ground, such as the margins on the opening pages of text, burnished to enhance their brilliance. Binding and calligraphy, however, are traditional. The calligraphy follows the model established by Shaykh Hamdallah and passed through Hafiz Osman to eighteenth-century calligraphers working in the capital Istanbul. The text is transcribed in a regular, well-proportioned *naskh* with fifteen lines to the page in the *ayat bar kinar* format. In these small Koran manuscripts, the emphasis is on consistency and readability. Ottoman calligraphers saved their flourishes for larger, individual works, many of which were executed in *naskh*'s larger counterpart, *thuluth*.

Another calligraphic composition in *naskh* that was elaborated in late Ottoman times was the calligrapher's license (Arabic *ijaza*; Turkish *icâzet*). To earn his license, a calligrapher had to make a presentation piece. It could comprise any of a variety of texts, ranging from Koranic verses and Traditions to short prose excerpts and poetry. Usually the calligrapher did not sign the work. Instead his name was mentioned in the license appended at the end or bottom. The license usually included the phrase *ajazatuhu bi-wad' al-kitbah* (I have licensed him to use the words *kitabahu* [written by]).

Attaining a license was a major stage in a calligrapher's career, sometimes celebrated with pomp and circumstance. The ceremony typically took place in a mosque, as, for example, with the eighteenth-century calligrapher Hasan al-Rushdi.⁶² According to the

Egyptian historian al-Jabarti, the ceremony was attended by a large audience, many of whom signed the certificate dated 1157/1744-5.⁶³ The text, a small exhortation in the spirit of Sufism written in *naskh*, is followed by Hasan al-Rushdi's license from his master, 'Abdallah Efendi, known as al-Anis, the head of a Mawlawi convent in Cairo. The license proper begins on folio 4a. In it al-Anis gives Hasan al-Rushdi permission to transmit the knowledge of calligraphy on his authority and on the authority of his teacher's teachers. Most importantly, al-Anis gives Hasan al-Rushdi the right to sign his work with the phrase *katabahu hasan al-rushdi* (literally, Hasan al-Rushdi wrote it). This is followed by the chain of authority going back to Shaykh Hamdallah (*al-tariqa al-hamdiyya*), from al-Anis' teacher Muhammad al-Nuri (d. 1162/1749) through Darvish 'Ali (d. 1086/1675-6), known as the Second Shaykh, and Hasan al-Uskudari (d. 1023/1614) to the family of Shaykh Hamdallah. The main license is followed by a series of twelve additional diplomas which serve as endorsements, including one from Isma'il Zuhdi, the most famous calligrapher of the day. Hasan al-Rushdi later married his teacher's daughter and in 1187/1774 became shaykh of the calligraphers and scribes at the Mawlawi convent. Al-Zabidi dedicated his small treatise on calligraphy to him.⁶⁴

Given the importance of transmission from master to pupil in training calligraphers during Ottoman times, it is no surprise that these licenses became major *tour de forces* of the calligraphic art. Examples from the nineteenth century often combine several scripts set in lavish decoration. To obtain this one (Figure 11.7),⁶⁵ the calligrapher Muhammad Nazif penned a calligraphic specimen in the horizontal format typical of Ottoman times. The top line in large *thuluth* says that God loves the servant who is pious, prosperous, and unobtrusive. The calligrapher's skill is evident in the regularity of the large bowls on final *ya'* repeated three times at the end of the line. The three shorter lines below, written in a smaller *naskh*, contain two prophetic Traditions related on the authority of Anas ibn Malik, saying that the best form of worship is reading the Koran and that the Koran reader is like the sweet scent of a beautiful flower. Here, too, the calligrapher stretched out the bowls on several letters, notably final *nun* but also *kaf* and *ba'*, to enhance the rhythm of the script. His *naskh* is very much in the tradition of Shaykh Hamdallah as refined by Hafiz Osman.

The license itself is written in a box in the middle of this very large sheet (40 × 31 cm) in the distinctive *riqa'* script used earlier for signatures. It begins by offering thanks to God who favored mankind with knowledge and skill and swore by the Sura of the letter *nun* and the pen, a reference to Sura 68. Next come praises to His prophet Muhammad, his family, and his companions. It then reports that the possessor of this document (*namiq*), Hafiz Muhammad Nazif, studied first under Hafiz Muhammad Salim and later under the signatory himself until completing this calligraphic



Figure 11.7 Calligrapher's license (Arabic *ijaza*, Turkish *icâzet*) issued by Hafiz Mehmed Sharif, probably at Edirne, on 7 Dhu'l-Hijja 1280/14 May 1864, allowing his pupil Muhammad Nazif to practice.

To receive his license, Muhammad Nazif copied a calligraphic specimen (Arabic *qit'a*; Turkish *kit'a*) in the typical Ottoman format, with a large line of *thuluth* followed by three smaller lines of *naskh*. The license, originally on a separate sheet, is written in three lines of the distinctive slanted *riqa'* script. Hafiz Mehmed Sharif granted his pupil the right to write, and eighteen other calligraphers from Edirne added their permission on the same day. The piece is remarkable for its fine, even hands and its elaborate gold decoration.

specimen (*qit'a*), after which he was licensed by Hafiz Muhammad Sharif al-Khulusi.

The other seven lines of text framing the license (one above it and six more below it) add a litany of endorsements from twenty other calligraphers. They each begin with the phrase 'also licensed him' (*wa adhina lahu*). These calligraphers lived and worked in Edirne, signing documents and designing monumental inscriptions there, and hence this license was probably produced in that city. The date is added at the end in abbreviated form (Figure 11.7a). The numeral seven for the seventh day and the letter *ha'* for the month of Dhu'l-Hijja are written below the word *sana* (year), which is surmounted by the numerals 1280. All of the texts in this calligraphic license are extremely finely and evenly written, and the quality of the script is enhanced by the lavish gold decoration.



Figure 11.7a

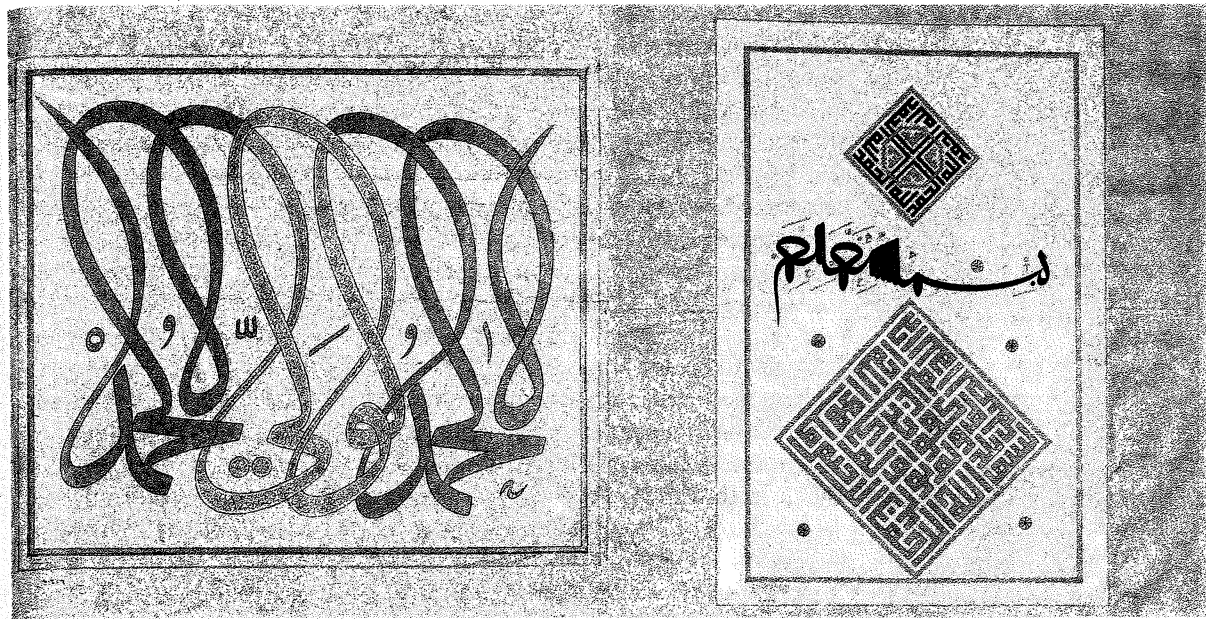
The canonization of *thuluth* as display script

Just as *naskh* became the pre-eminent text script, so its larger counterpart *thuluth*, sometimes called the mother of scripts, became the foremost display script, used in manuscripts as a foil to *naskh*, but also in the large form (*jali*; Turkish *celi*) for frontispieces, architectural inscriptions, and individual calligraphic compositions in which it was written in a variety of ways and juxtaposed to a number of other scripts and designs. The large form of *thuluth* came to the fore in the sixteenth century, especially in the work of the third great Ottoman calligrapher Ahmad Karahisari, considered the master of *thuluth jali*.⁶⁶ Born in Afyon Karahisar in Western Anatolia (whence his epithet Karahisari), Ahmad became a member of the imperial corps of calligraphers (*ahl-i hiraḥ*) and the most famous calligrapher under Sultan Sulayman.⁶⁷ Signed works date between 1527 and 1554, and all seem to have been imperial commissions. The most impressive were done during the last decade of his life, including the largest copy of the Koran ever made for the Ottomans, a huge (63 × 43 cm) manuscript that was still unfinished at his death in 1556.⁶⁸

In addition to Koran manuscripts, Ahmad Karahisari copied collections of Traditions and prayers, specimen alphabets, and calligraphic exercises. Like his famous predecessor Shaykh Hamdallah, Ahmad Karahisari often contrasted a large *thuluth* with a smaller *naskh*, as in the opening double page to the splendid copy of the Koran he penned for Sulayman in 953/1546–7.⁶⁹ He took advantage of the large open spaces provided by double frontispieces in these large manuscripts to play one script off against another. One of the earliest and most famous examples of such a calligraphic composition is the double-page frontispiece (Figure 11.8) to a manuscript of pious texts that Ahmad Karahisari penned for Sultan Sulayman c. 1550.⁷⁰ Its fifteen folios contain Sura 6 (al-An‘am), assorted hadiths, prayers, and selections from al-Busiri’s ode to the mantle, *Qasidat al Burda*. To transcribe the text, Ahmad Karahisari returned to the very large folios of half-*baghdadi* size that had been used since the fourteenth century for Koran manuscripts (Figure 7.2, 8.1 and 8.13) made for the Ilkhanids and Mamluks and the albums (Figure 7.7) made for the Timurids.

Ahmad Karahisari’s double-page frontispiece to the religious volume is particularly masterful. In it, he explored the limits of two, seemingly contradictory techniques: the squared (*banna’i* or *ma‘qili*) script, in which a text had to be fitted into a square without leaving any extraneous spaces, and the chained (*musalsal*) method, in which an entire phrase in *thuluth* is written in a single curving stroke, seemingly without lifting the pen from the page. On the one hand, he adapted a text into a rigid grid, while on the other he showed how a master calligrapher could exercise total control over the flowing line.

The double page contains four short texts. The first begins on the right page in the vertical (portrait) box, a shape typical of



manuscripts. The single line of black script in the middle contains the basmala written in the chained technique, seemingly in a single black stroke. In the late fifteenth and early sixteenth centuries Ottoman calligraphers had used the chained style for dedicatory rosettes, often repeating the shapes in mirror reverse around a central axis,⁷¹ and Ahmad Karahisari emphasized the symmetrical nature of the phrase by exaggerating the *ha*'s in *rahman* and *rahim* to look like little bows. Yaqut al-Musta'simi and his pupil Ahmad al-Suhrawardi had already used such a bow-shape in examples of the basmala executed in *riqa*,⁷² but Ahmad Karahisari regularized the script. Similarly, he stylized the uprights of *allah* and the prefix *al-* so that the strokes resemble the bars of a radiator. The phrase is so mannered that only someone who knew the text would be able to read it from the design.

The basmala is sandwiched between two diamond-shaped boxes containing texts written in squared script. The smaller box at the top contains the phrase 'Praise God' (*al-hamd lillah*) written in black letters. The text, which begins in the center of each side and is repeated four times, frames a gold octagon enclosing a black cross-shape. The large box at the bottom, also written in gold, contains Koran 112 (*al-Ikhlās*, Sincere Religion), beginning at the right corner and spiraling inward.

On the left page Ahmad Karahisari penned a single text in *thuluth* in the horizontal (landscape) format, a shape typical of individual compositions known in Turkish as *istif* (pl. *istifler*). The text contains a pious phrase 'praise to the supporter of praise' (*al-hamd li-wali al-hamd*). The text picks up the theme of praise mentioned in

Figure 11.8 Double-page frontispiece to a manuscript of religious texts penned by Ahmad Karahisari for Sultan Sulayman, c. 1550.

In this double-page frontispiece, Ahmad Karahisari shows his mastery of two, seemingly contradictory, techniques. On the one hand, he perfected the *ma'qili* (squared) script, in which he fitted texts into a grid without leaving any extraneous spaces. On the other, he refined the *musalsal* (chained) script, in which he penned the gold text seemingly without lifting his pen from the page, and the floral script known in Iran as *gulzar*, in which he composed the interior of the letters with flowers.

the box on the upper right, but seems to have been chosen more for its symmetry and calligraphic potential than its literal meaning. The composition reveals several features of monumental epigraphy. The repetition of forms recalls the Ottoman tradition of mirror writing (Turkish *aynalı* or *müsennā*), in which a word or phrase is written as a mirror image.⁷³ To pen the words, Ahmad Karahisari again used the *musalsal* technique, transforming the uprights into a row of sinuous curves and adding extra loops above the bodies of the letters to create a symmetrical pattern. The intertwined stems of the letters recalls the epigraphic tradition of interlacing.⁷⁴

A master artist, Ahmad Karahisari also exploited color to enhance his composition. He used black and gold inks to pen the texts. On the right page, the chained script is written in black with gold diacriticals. The squared text above is black with gold decoration, and the squared one below is gold outlined in black. The combination of black letters and gold decoration is unusual, for typically words were written in gold, with other colors used for the decoration. On the left page, Ahmad Karahisari used color more deliberately. The word *al-hamd*, repeated at the beginning and end of the phrase, is written in gold outlined in black, while the middle word *li-wali* is outlined in black and then filled with rosettes composed of black dots decorated with gold (Figure 11.8a). This is an early Ottoman example of the technique known as *gulzar*.⁷⁵ Ahmad Karahisari's choice of colors and scripts enhances meaning and emphasizes symmetry. With its self-conscious virtuosity and strong element of design and display, this frontispiece shows that calligraphy has opened up in new directions as an independent field of artistic creativity beyond the conveyance of semantic information.

J. M. Rogers and Rachel Ward suggested that Ahmad Karahisari, in his choice of text and probably in his selection of scripts as well, was indebted to works of pious calligraphy made for the libraries of the last Mamluk sultans that had come to the Ottoman following their conquest of Egypt in 1517.⁷⁶ Al-Busiri's text, *Qasidat al-Burda*, had been popular with the Mamluks; Qa'itbay owned several copies (Figure 8.8). Mamluk calligraphers had also used the chained technique, and al-Tayyibi had included it in his album as one of his curvilinear scripts (Figure 8.7b). Al-Tayyibi's volume passed to the imperial Ottoman library in Istanbul, although we do not know whether it was available to Ahmad Karahisari. Mamluk models, however, were not the only source on which Ahmad Karahisari drew. The artistry and sophistication he used in designing this frontispiece are also indebted to the tradition of dedicatory rosettes already practiced in early Ottoman times (Figure 9.5) and to Ottoman calligraphers' mastery of large hands and intricate compositions in architectural decoration.

Calligraphic compositions in large *thuluth* were eminently suitable to decorate the many architectural complexes of the time, and the designs by Ahmad Karahisari and his adopted son and successor

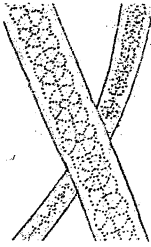


Figure 11.8a

Hasan Chelebi (d. after 1594) are considered the acme of the tradition. The two calligraphers designed the inscriptions for the most prestigious architectural complexes of the day, including the Sulaymaniye in Istanbul (1550–7) and the Selimiye in Edirne (1567–75). The texts were carefully selected. The Koranic verses decorating the Sulaymaniye, for example, stress the metaphor of paradise and the prescriptions of the *shari'a* regarding the ritual duties of orthodox Muslims.⁷⁷ The central dome contains Koran 35:41, stating that God sustains the heavens and the earth. The style of script, in which the tall verticals are arranged in a circle like the rays of the sun, enhances the cosmic symbolism. Such a style of script with extra tall verticals had been used for the Mamluk *tughra* (Figure 8.10), and Mamluk artists had designed such sunburst-like calligraphic roundels for metalwares since the early fourteenth century work (Figure 8.9). Ottoman calligraphers like Ahmad Karahisari and Hasan Chelebi adopted such roundels on a grand scale for architecture.

The inscriptions on these complexes were executed in several techniques: painted on the stucco-covered walls, pendentives, and dome; underglaze-painted on tiles; and carved in stone.⁷⁸ The range of materials shows that the designs must have been transferred using stencils. To do so, the calligrapher first penned the inscription in lampblack ink on large sheets of paper and then pricked tiny holes around the contours of the letters with a fine needle. To transfer the calligraphic composition, he attached the stencil (Turkish *kalıp* from the Arabic *qalib*, meaning mold or matrix) to another surface and rubbed it with a pounce of charcoal or chalk dust, thereby leaving tiny dots on the surface below. After pouncing, the calligrapher could then connect the dots with ink and brush away the dust.⁷⁹ Documentary sources record that large amounts of paper were required in building the Sulaymaniye complex, probably for this very purpose.⁸⁰

In addition to manuscripts and inscriptions, Ottoman calligraphers also used *thuluth* for many types of smaller works intended to be mounted in albums. The roughest type was the practice sheet known as in Persian as *siyah mashq* (black practice; see Chapter 11) and in Turkish as *karalama* (pl. *karalamalar*).⁸¹ One of the earliest to survive was penned by Shaykh Hamdallah in [8]95/1489–90,⁸² although such exercises were probably made earlier. By the eighteenth century the term had come to designate the process of turning a sheet black by filling up every available space. Only recently have collectors deemed these practice sheets worthy of artistic note, and few of them have been published. In these exercises, form generally supersedes content, and some of the phrases are almost meaningless.

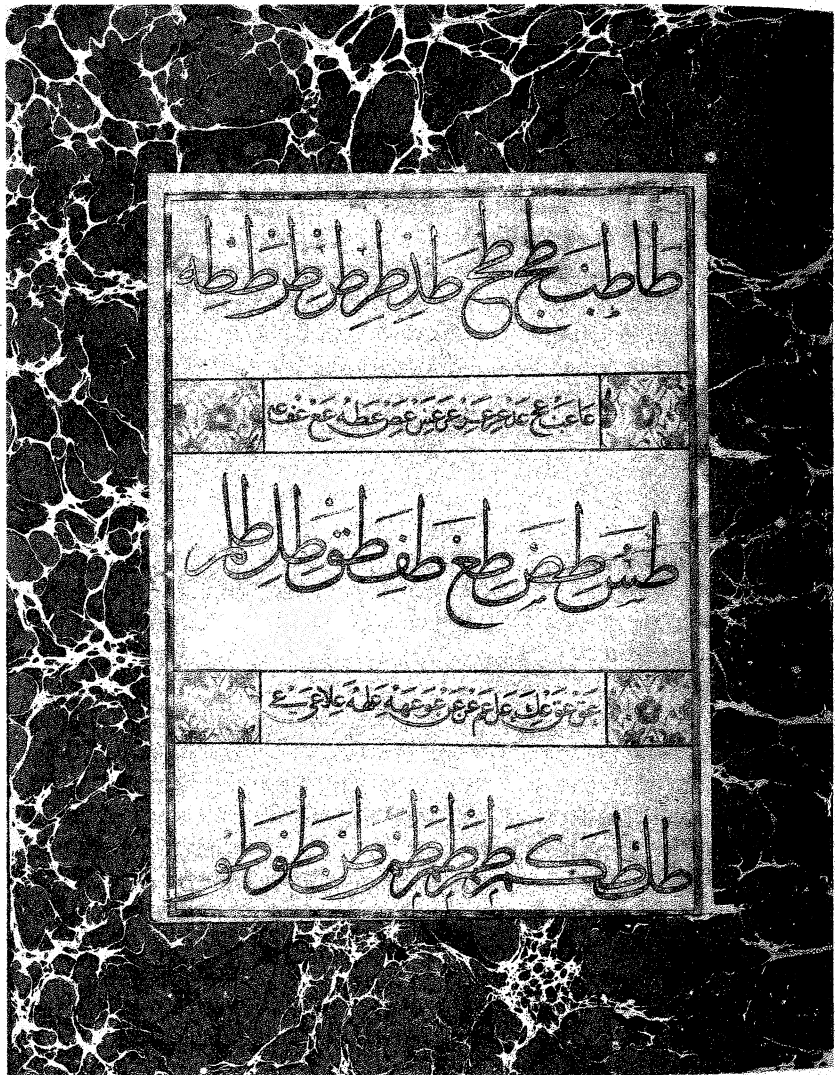
A second type of calligraphic specimen destined for albums is the alphabetic exercise known in Arabic as *mufrada* (Turkish *müfreda*).⁸³ Deriving from the root *f-r-d*, which conveys the idea of singularity, the term designates a calligraphic exercise in which the letters of the Arabic alphabet are written in sequence as an exemplar. Following the basmala and short prayers, the calligrapher penned the individual

letters, first in independent form and then in combination with other letters. The work often concludes with prayers praising God or a poem, such as the ode on the basmala composed by the Timurid poet 'Abd al-Rahman Jami or the description of the Prophet composed by the Ottoman poet Muhammad Khaqani (d. 1606).

The text in these alphabetic exercises was often penned in *thuluth* alternating with shorter lines of a smaller *naskh*. The typical page from a vertical-format album of alphabetic exercises has five or seven lines per page, as in a page (Figure 11.9) from an incomplete vertical album penned by Darvish Muhammad in 984/1576–7.⁸⁴ Like his teacher Ahmad Karahisari, Darvish Muhammad was a master of large-scale architectural compositions in *thuluth*, and here he combined *thuluth* with *naskh* in alternating lines of large and small script. The

Figure 11.9 Page from an album of alphabetic exercises (*mufraddat*) penned by Darvish Muhammad in 984/1576–7.

Darvish Muhammad penned this exercise in gold letters outlined in black. The large lines of *thuluth* contain combinations of *ta'* with other letters, the smaller lines of *naskh* those of *'ayn*. To enhance the gold calligraphy, someone later added marbled borders and rebound the pages in a modern binding.



large lines contain combinations of *ta'* with other letters, the small lines combinations of *'ayn*. Darvish Muhammad used gold letters outlined in black, the same combination his master had used in the opening pages to the magnificent Koran manuscript made for Sulayman.⁸⁵ Darvish Muhammad also linked several groups of letters, as in the center line where the last four pairs of letters are connected as though written with a single stroke. This linking or chaining of letters was also typical of his master's hand (Figure 11.8). Darvish Muhammad's placing and spacing of lines, however, is distinct: the lines veer upward, and the stems of the letters in the top line encroach on the upper frame, as do the tails of the letters in the bottom line.

The third, most common, and most polished type of small work gathered in albums is the calligraphic specimen (Arabic *qit'a*; Turkish *kit'a*).⁸⁶ Whereas specimens of Persian verse are typically written on vertical sheets in diagonal lines of the hanging *nasta'liq* (see below, Figure 11.18), calligraphic specimens written in Arabic verse or prose during the Ottoman period are written horizontally in landscape format, with a large line of *thuluth* above a narrower panel containing three to five lines of smaller *naskh* written horizontally or occasionally on the diagonal.⁸⁷ The side panels flanking the shorter lines, sometimes called *koltuk* (underarm or armchair) because of their shape, were filled with decoration. Shaykh Hamdallah had already used this format, though with wider panels of decoration,⁸⁸ and it continued to be popular for many centuries.⁸⁹ It was also adopted for the alphabetic exercise (Figure 11.9). When the text runs over a series of pages, as here and in the alphabetic exercise, it reads first through the large *thuluth* script and then through the smaller *naskh*. The individual pages were mounted on board and bound either vertically in codex format, as in the alphabetic exercise, or, more typically, horizontally in accordion format, as in this example penned by Hafiz Osman in 1105/1693–4 (Figure 11.10).⁹⁰

In these calligraphic compositions, the large text usually contains a series of aphorisms, the smaller one, a collection of hadith. This page, for example, contains the sentence in large script that 'God is the protector' (*allah wali al-tawfiq*). The final *ya'* of *wali* is elided to the *alif* and *lam* of *al-tawfiq*, one of the unauthorized connections permitted in *thuluth* since the time of Yaqut.⁹¹ The smaller *naskh* below, by contrast, is marked by the distinct separation of words and letters. The large aphorism was a common one. It was often followed by another rhyming phrase such as 'and the best of companions' (*wa huwa na'am al-rafiq*). Shaykh Hamdallah had penned a similar example, and Sam Efendi made a stencil with the same phrase in 1330/1912.⁹² Hafiz Osman's distinctive composition draws out the strokes of *fa'* and *qaf* so that they parallel the unauthorized connection in the center. He then played with the dots, lining up the two from *ta'* and the one from *fa'*.

Whereas these small compositions – whether practice sheets, alphabetic exercises, or calligraphic specimens – were typically



Figure 11.10 Page with a calligraphic specimen (*qit'a*) penned by Hafiz Osman in 1105/1695–6.

The calligraphic specimen (*qit'a*) was the most common exercise penned by Ottoman calligraphers. The typical example contains a line of large *thuluth* containing an aphorism and several shorter lines of smaller *naskh* containing hadith. The two texts run concurrently from page to page, and need to be read separately. The individual specimens were usually mounted on pasted board and bound, as in this case, in an album in accordian format.

bound in albums, from the late eighteenth century large-scale compositions in *thuluth* came to the fore. Such compositions, executed on both paper and fabric, are known in Turkish as *levhalar* (sing. *levha*), literally meaning signboards and generally indicating framed pictures, as these compositions were often mounted so that they could be framed and hung on the wall.⁹³ The taste for such wall panels seems to have been a local adaptation of the European tradition of painted canvases that developed at a time when Ottoman artists introduced other innovations from European art, such as landscape scenes painted on the walls of palaces and houses.⁹⁴ At first, these large calligraphic compositions were mounted on wood, but it is heavy and tends to deteriorate. Pasteboard was preferable. It had been used for centuries in the Islamic lands in book covers, but following the Industrial Revolution large sheets were available for these compositions, which typically measure a half meter in one direction and can reach more than a meter on a side.⁹⁵ The surface of the pasteboard was often coated with a bright and shiny mineral pigment, typically black, brown, blue, green, or red. The fanciest examples were

painted in gold ink (Turkish *surme altın*; Persian *zar indud*) and typically finished not by the calligrapher himself, by an illuminator who burnished the gold calligraphy to a matte finish that contrasts with the bright ground.⁹⁶

To make such large compositions, calligraphers elaborated the technique of stencils and pouncing that had been used to transfer designs to various surfaces such as pottery or stuccoed walls. Designing large compositions was a time-consuming and expensive process, and those done on white paper with black ink could easily be damaged in pouncing. Hence, artists began to make intermediate copies on dark brown or black paper using a special yellow ink made from arsenic-based orpiment. These materials had two advantages: the orpiment ink did not build up on the paper, and mistakes could be covered with black ink and rewritten with orpiment. In addition, this method allowed the calligrapher to reproduce copies far more quickly, for he could paste the original composition on several sheets of paper and prick the group of sheets at one time, thus producing several intermediate copies from a single original.⁹⁷ After pouncing, the calligrapher could use a narrow-nibbed pen to trace the dots and draw the outline of the letters, which could then be inked in or filled with flowers in the *gulzar* technique (Figure 11.8). Master calligraphers, however, could use a reed pen with a wide nib to simply rewrite the letters using the dots as a guide.

One of the first masters in designing such calligraphic panels was Mustafa Raqim (1757–1826).⁹⁸ Renowned for his proficiency in large scripts, which he also used for monumental inscriptions,⁹⁹ Mustafa Raqim applied the principles that Hafiz Osman had developed for *thuluth* (Figure 11.4) to the large style known as *jali* (Turkish *celi*). To reproduce these compositions, Mustafa Raqim also made stencils, some of which are still preserved.¹⁰⁰ A fabric panel in the Sabanci Collection (Figure 11.11) gives a good idea of the fine quality of Mustafa Raqim's work.¹⁰¹ The main text is written in two sizes of *thuluth jali*, with the words ingeniously fitted together to form phrases that can be read on three levels of expanding complexity. The large letters on the bottom line contain the names God (*allah*) and Muhammad. They can be read in conjunction with the three words written in the same large script on the upper line to form the rhyming phrases *allah huwa rabbi muhammad nabi* (God, He is my Lord; Muhammad is my prophet). Fitted in around the large letters are complementary phrases in smaller letters that can be read alongside the main words to form an expanded version of the profession of faith: *allah la ilah ila huwa rabbi wa rabb al-'alamin; muhammad sala allah 'alayhu wa salam nabi* (God, there is no god but Him, my Lord and Lord of the Two Worlds; Muhammad, may God bless him and grant him peace, is my prophet). The text is remarkable for its balance and symmetry. Note, for example, the way that Mustafa Raqim sprinkled vocalization and diacritical marks regularly through the composition and designed the square arrangement of



Figure 11.11 Fabric panel with pious phrases penned by Mustafa Raqim after 1809.

Mustafa Raqim was a master of large scripts and is most famous for applying the principles of Hafiz Osman to *thuluth jali*. He used this large script for magnificent panels (Turkish *levhalar*), notable for the bold calligraphy arranged in symmetrical and balanced compositions. He penned his signature at the bottom left in a stylized combination of *thuluth* and *tawqi*.

four dots, which mark the two final *ya*'s in *rabbi* and *nabi* and fill the space at the left.

Mustafa Raqim ingeniously fitted his signature, *katabahu raqim* (Raqim wrote it), in a triangular composition inserted at the bottom left between the second *mim* and the final *dal* of *muhammad* (Figure 11.11a), using the distinctive style developed for the sultan's *tughra* (see below, p. 510). The signature combines the curvilinear elements of *thuluth*, the standard script for monumental inscriptions, with the unauthorized connections typical of *tawqi*, the larger of the two connected scripts used for headings and signatures. He piled up the words in a triangular composition, as in a *tughra*. The bottom line contains the word *katabahu* (wrote it), with the cross-stroke of initial *kaf* written as a sweeping curve. More distinctive is the second word *raqim*, written with connecting and intersecting curves. Initial *ra*' is a horizontal S-curve that intersects with the

cross-bar of *kaf*. *Alif* is a vertical stroke that begins below the baseline and ascends with a flourish to intersect with *qaf-mim*. It is mirrored in the curved tail added to final *mim* and encasing the whole triangular composition that is written separately from the main inscription. Mustafa Raqim omitted all dots in his signature, although other calligraphers who adopted his style included some of them.

These large calligraphic compositions, striking in the boldness of their color and script, were one of the most notable Ottoman contributions to the art of calligraphy. They were justly popular, and even larger examples could be painted on wood. The most famous are the eight roundels designed in 1859 by Qadi-'askar Mustafa 'Izzet to be hung below the dome in the interior of the congregational mosque converted from the great church of Hagia Sophia (Figure 11.12) in Istanbul.¹⁰² Written in *thuluth jali* in gold on an ultramarine ground, they contain the names of God, Muhammad, his sons Hasan and Husayn, and the four orthodox caliphs. The largest of their type, they measure a colossal eight meters (twenty-five feet) in diameter. The eight sacred names are written in enormous *thuluth jali*, whose strokes measure some 35 cm wide and must have been enlarged by squaring. Smaller versions survive on both pasteboard and wood.¹⁰³ As on Mustafa Raqim's panel (Figure 11.11), the benedictions following each name are fitted in the interstices to fill out the circular compositions. On the wooden roundels, the gold letters are carved in relief to reflect the light. The calligraphic compositions are usually left plain, although, on at least one pasteboard example with the name of God, a floral spray was added to fill the ground below.¹⁰⁴ When hung in the pendentives of the dome of Hagia Sophia after its conversion into a mosque, the roundel with the name of God was hung to right of the mihrab and the one with Muhammad to the left. The two panels, which extol the two pillars of Muslim faith, were immediately visible to anyone entering the main doorway. The panel with *allah* (Figure 11.12a) is particularly striking, with an artful *tughra*-like arrangement of the benediction *jall jalala* (may his majesty be exalted). The two words share the same vertical stroke of *lam*, but the two introductory *jims* are set slightly below each other, a visual evocation of the verbal reverberation of God's name.

The most exotic of the calligraphic compositions popular in late Ottoman times – and one at the other end of the spectrum from the large panels in *thuluth jali* – is the gold leaf, in which the dried leaf served as the matrix for a calligraphic composition.¹⁰⁵ The calligrapher could use leaves from various types of trees (e.g., horse chestnut, fig, or mulberry) or plants (e.g., ivy, or rose), but the most popular was the hardy tobacco, a plant introduced from the New World and a favorite in the Islamic lands since the early seventeenth century.¹⁰⁶ Using ink or pigment mixed with gum arabic to strengthen the leaf structure, the calligrapher applied the composition to the back of the leaf, which could be positioned either horizontally or vertically.



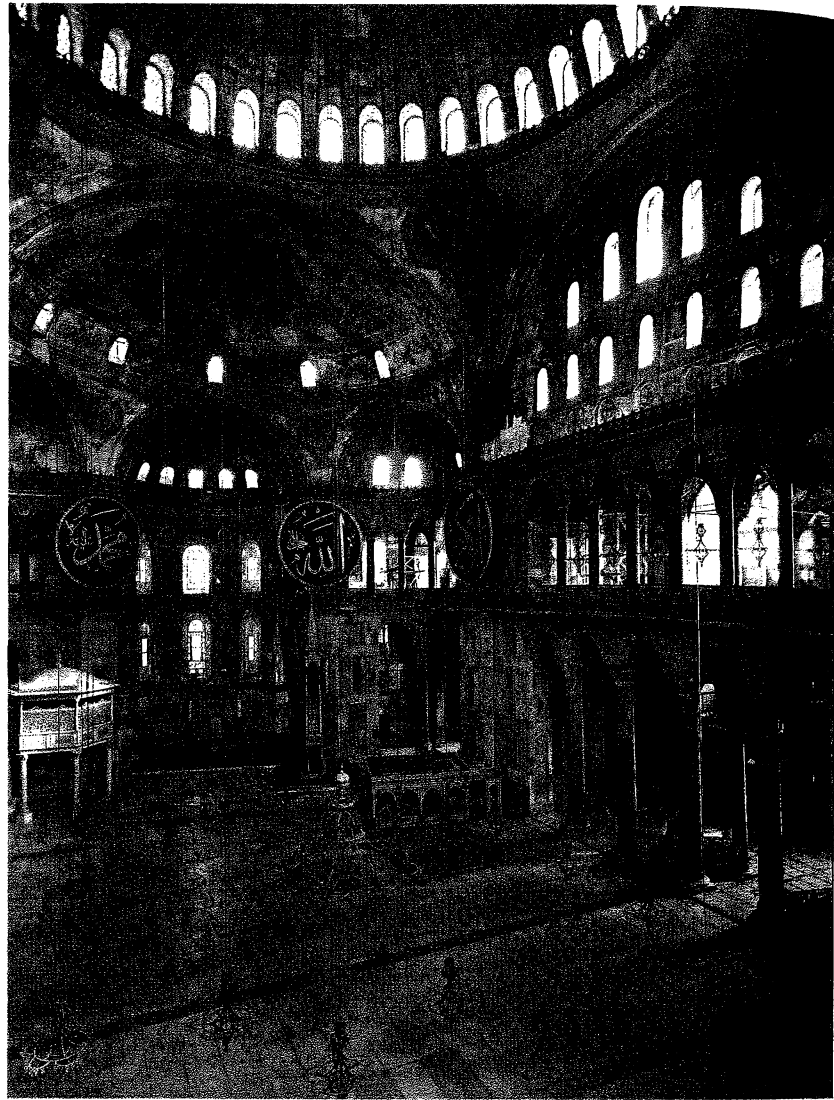
Figure 11.11a

Figure 11.12 View of the interior of the Church of Hagia Sophia, with large wooden roundels designed by Qadi-'askar Mustafa 'Izzet in 1859.

The panels in *thuluth jali* designed by Qadi-'askar Mustafa 'Izzet represent the triumph of scale. The largest examples of the script to survive, they measure a whopping 8 meters in diameter and make concrete the verbal message extoling the names of God, the Prophet, and his family and followers.



Figure 11.12a

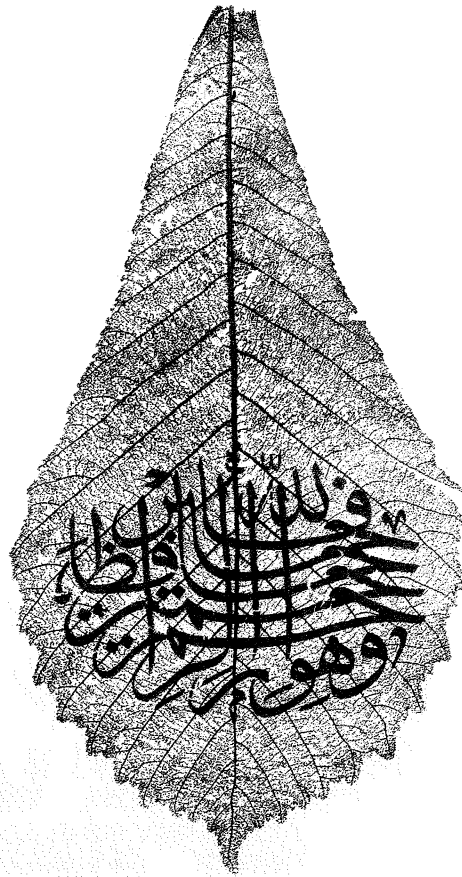


Typical examples measure 15×10 cm, a tenth the size of the panels. Using a pin, the calligrapher then pierced the leaf, delicately removing the tissue and leaving the skeleton of membranes exposed.

The technique of inscribing the leaves of trees or plants seems to have developed in Bursa in the late nineteenth century.¹⁰⁷ These leaves were particularly popular with Sufis, perhaps because they equated the fragility of the leaf with the temporality of the human condition. Many examples are preserved in the museum around the tomb of Jalal al-din Rumi at Konya. Sometimes, the inscriptions on these leaves attest to their Sufi affiliations. Some invoke the name of Rumi or depict his turban.¹⁰⁸ Another invokes the name of 'Abd al-Qadir, suggesting an affiliation to his Sufi order, the Qadiriyya.¹⁰⁹ It

Figure 11.13 *Horse-chestnut leaf inscribed with Sura 12:64 in red pigment in thuluth.*

One of the most exotic arts perfected by Ottoman calligraphers was the technique of inscribing the leaves of trees or plants with pious phrases. This horse-chestnut leaf contains a Koranic verse about God's mercy. The design was already laid out by Husni Efendi in the late nineteenth century, but has been made taller and more compact to fit the shape of the leaf.



is unclear exactly what function these leaves performed. They show no signs of mounting, whether in albums or on walls of shrines. Perhaps they were simply rarefied souvenirs.

Most of the texts inscribed on these leaves are short phrases written in a tall *thuluth* with elongated verticals. The texts are often placed symmetrically around the leaf's central stalk, which is highlighted in color. Some short texts are written in mirror reverse; others are set in a pear-shaped frame. The compositions seem to have been taken from larger works in other media, though their monumentality belies their tiny size on the leaves. One example (Figure 11.13), written in red instead of the usual gold, contains a quotation from the Surat Yusuf (12:64) saying that God is the best caretaker and the most merciful of the merciful.¹¹⁰ The design, with its striking pile of initial *ha*'s, copies a calligraphic specimen signed by the late

nineteenth-century calligrapher Husni Efendi.¹¹¹ Other tobacco leaves are inscribed in gold with the names of God, Hasan, Husayn, and the four orthodox caliphs.¹¹² Their texts copy the monumental roundels designed by Qadi-‘Askar Mustafa ‘Izzet to hang in Hagia Sophia (Figure 11.12).

The Ottomans, like some Muslims today, preferred words to pictures.¹¹³ Unlike their counterparts in Iran, court artists experimented little with combining pictures and words, and the only type of pictorial writing that flourished in the Ottoman lands was zoomorphic calligraphy. The Shah Mahmud Nishapuri album compiled at the Ottoman court c. 1560 contains a splendid example of a lion drawn in gold by Mir ‘Ali Haravi (Figure 10.15), and this beast became a favorite figure for certain Shi‘ite groups, especially the Sufi order known as the Bektashis.¹¹⁴ The Bektashis came to venerate ‘Ali as the originator of the Koran (*sahib-i risala*) and the lion of God, of whom Hajji Bektashi was said to be the reincarnation. Hence Bektashis often composed zoomorphic calligraphies in the shape of a lion. These popular images were often explicated symbolically. Thus, the lion’s paws usually had five claws, said to represent the pentad of God, Muhammad, ‘Ali, Hasan, and Husayn, and the lion’s red tongue signified that ‘Ali was the spokesman (*natiq*) of Muhammad. Many faces were drawn with the text in mirror image, symbolizing the exoteric (*zahir*) and esoteric (*batin*) aspects of being. The letters in these zoomorphic calligraphies were talismanic, and the basic text could be supplemented by additional words or characters, making the content extremely difficult to read.¹¹⁵

The Bektashi hung these calligraphic images on the walls of lodges (*tekkes*), tombs, meeting houses, and even private homes, but despite their widespread use, surprisingly few have survived, perhaps because they were wilfully destroyed after the establishment of the Turkish Republic.¹¹⁶ A few are preserved in ethnographic museums, including one that depicts a lion, the symbol of ‘Ali, surnamed Haydar (lion), killing a serpent, who represents the black, or lower, soul.¹¹⁷ The picture is composed of a verse by the Persian mystical poet Farid al-Din ‘Attar (d. 1220) saying that it is not everybody’s role to kill the evil soul in the body; to cut (changed in the text to ‘I cut’) into pieces the serpent in the cradle is the work of Haydar. Disentangling these calligrams is often difficult, and hence to make sure that the reader got the message, the calligrapher repeated the verse in a readily readable *naskh* at the lower right followed by the date 1210/1795.

These Bektashi images were part of popular culture, but such compositions were also designed by famous calligraphers at the Ottoman court. Some took the shape not of living beings, but of objects like a ship. One penned by Isma‘il Durdi in 1102/1690 contains the names of the Seven Sleepers mentioned in the Koran (18:8).¹¹⁸ Cartouches at the side contain two of the ninety-nine names of God: Opener (*fattah*) written in mirror reverse and Forgiver (*ghaffar*). The image had talismanic properties: the ship represents the boat to salvation, for which

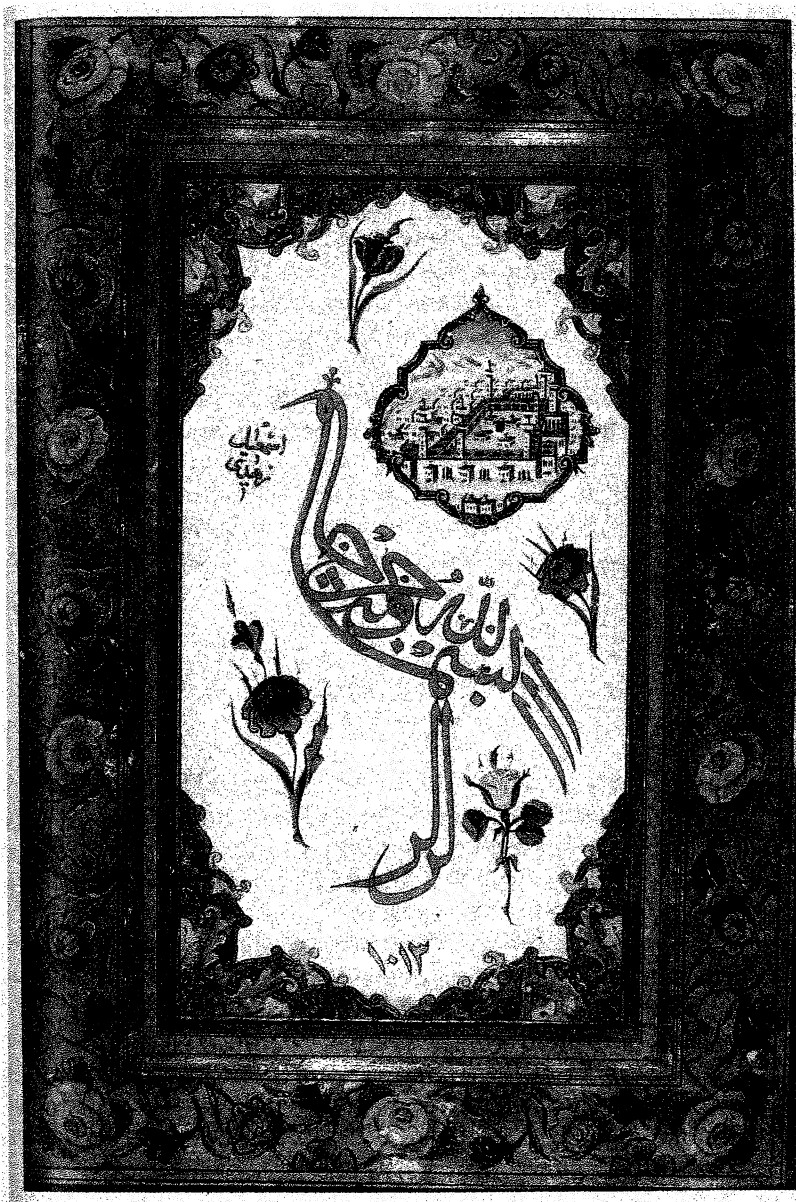


Figure 11.14 Calligraphic composition with the *basmala* in the shape of a stork composed by Isma'il Zuhdi, perhaps in 1213/1798.

Isma'il Zuhdi artfully transformed the letters of the invocation to God into a stork, considered an auspicious bird praised for its piety in performing the pilgrimage to Mecca. Hence, the calligrapher also included an image of the shrine on the right, opposite his signature. The page bears the number 1013 at the bottom, presumably a misnumbering for 1213/1798–9. This is one of the earliest examples of zoomorphic calligraphy in the shape of a stork, which became a popular composition in Ottoman times.

God will open the door. The ship was a popular image: another example composed of the profession of faith was penned by Sayyid Ibrahim in 1277/1860.¹¹⁹

Another familiar zoomorphic composition was a stork, a bird praised for its piety in performing the pilgrimage to Mecca.¹²⁰ Isma'il Zuhdi, older brother and teacher of Mustafa Raqim, for example, penned the phrase *basmala wa bihi* (in the name of God the Merciful, the Compassionate, and to Him) in black *thuluth* outlined in gold in the shape of a stork (Figure 11.14).¹²¹ The composition begins at the

stork's rear, with the three initial *alifs* of *allah*, *al-rahman*, and *al-rahim* serving as its tail and the repeated *lam-ra'* of the latter two words as its legs. Perhaps the most artistic touch in the calligraphy is the loop of the final *mim* in *al-rahim*, which serves as the bird head. The letter *mim* also represents the number forty, the abbreviation for Muhammad, recipient of the Divine Word.¹²² Isma'il's name floats to the left of the stork's beak, almost like prey ready to be pecked. To the right is a rendering of the haram at Mecca. Such images of Mecca and Medina were popular at this time, used to illustrate pilgrimage manuals and tiles as well as descriptions of the Prophet (*hilyas*), which are decorated with a similar elaborate floral border.¹²³ Below the stork's feet is the date 1013/1604–5, presumably a misnumbering for 1213/1798–99. This is one of the earliest of such images of a stork, which was often repeated in slightly varying forms. Isma'il Zuhdi's younger brother Mustafa Raqim made one dated 1222/1807–8.¹²⁴ So did the nineteenth-century calligrapher Bektashli Nuri.¹²⁵ Such images attest to the popularity of zoomorphic calligraphy in the Ottoman lands, albeit not in court circles.

The hanging scripts

In addition to the round hands, calligraphers in the Ottoman lands, like their counterparts in Iran and elsewhere, often used different types and sizes of the hanging scripts. Chancery scribes used a hanging script for documents. The earliest surviving examples issued by the Ottoman court in the early fifteenth century had been written in *ta'liq*, the hanging script also used in Persian chanceries (see Chapter 9). Following the establishment of the imperial chancery at Istanbul in 1453 and the proliferation of both personnel and documents, Ottoman scribes began to elaborate *ta'liq* script, developing the distinctive Ottoman style known as *divani* (literally, belonging to the chancery), since its use was restricted to the chancery.

The original *divani* script seems to have been unvocalized, as in an edict issued by Cem Sultan in mid-Rabi' I 886/mid-May 1481.¹²⁶ The lack of vocalization made the script difficult to read, so scribes soon began to elaborate it by adding vowels, reading signs, and decoration. The new form is sometimes called *jali divani*, meaning not large *divani*, but clear or evident *divani*. Like *ta'liq*, this stylized chancery hand is written in widely spaced lines that ascend to the left. The extreme stylization and increasing number of unauthorized connections make it not only challenging to write and read *divani*, but almost impossible to have words or lines interpolated in it. The script thus insured confidentiality and protected documents from forgery.

Chancery scribes used *divani* for many official documents, including correspondence, endowment deeds (*waqfiyya*), edicts (Persian *firman*, Turkish *ferman*); grants of titles, land, and privileges (*berat*); appointments (*manshur*), and the like. Such documents were quite numerous: it has been estimated that some 3,400 were issued yearly

under Sulaymān. The documents were typically embellished at the top with the sultan's personal emblem, or *tughra*, which was also carved on seals and engraved on coin dies.¹²⁷ Each sultan had his own emblem designed at the time of his accession and continued to use it throughout his reign. Since sultans did not sign their documents, the *tughra* was the ultimate authentication, affixed by the chancellor in the imperial chancery (Turkish *nisançı*).

Paul Wittek first categorized the four main components of the Ottoman *tughra*.¹²⁸ The first is the monogram proper (Turkish *sere*, literally palm), the lower portion with stacked letters bearing the name of the owner. The second comprises the shafts (Turkish *tuğ*, battle standard), three vertical projections at the top joined by S-shaped strokes (Turkish *zülfe*, lock or tress). Third are the loops (Turkish *beyze*, egg or oval), two concentric circular extensions on the left. The fourth are the pincer-like projections extending from the ends of the loops on the right (Turkish *kol*, arm, or *hancer*, dagger).¹²⁹

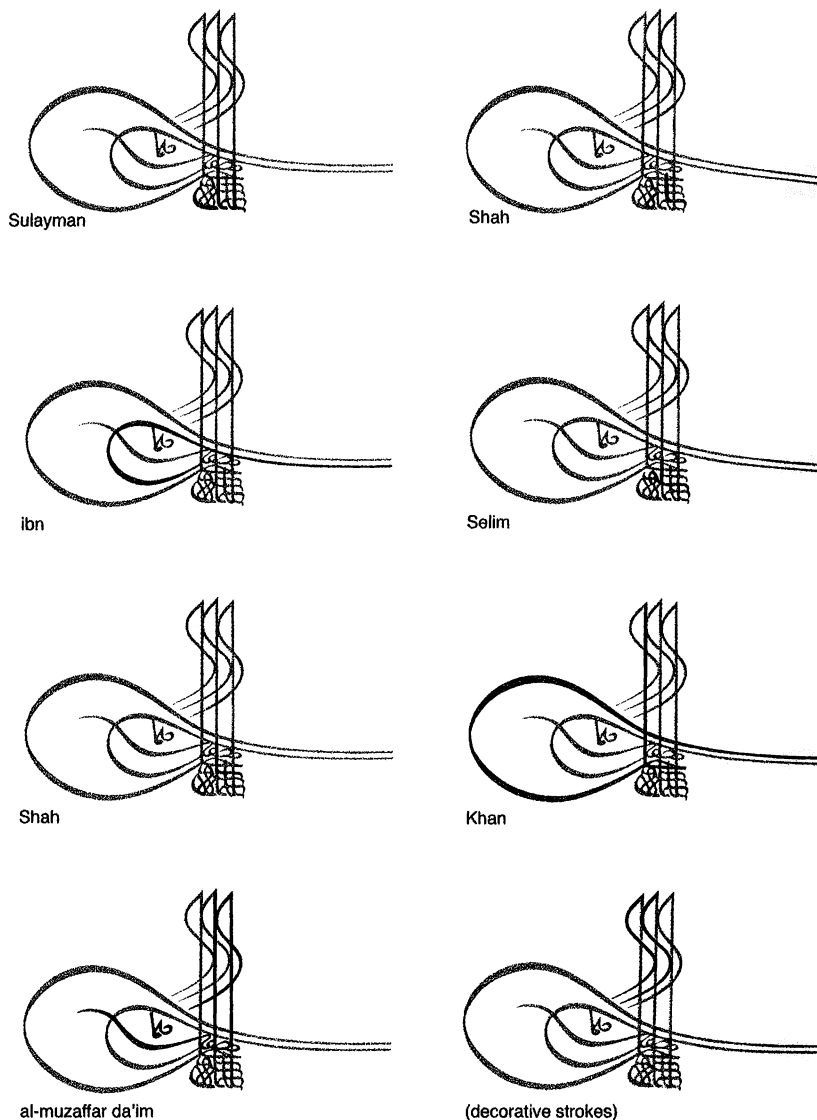
The calligrapher usually drew the *tughra*, which, like a large-scale composition in *thuluth* (*levha*), could then be handed to an illuminator for decoration. Over time, the text became longer and the calligraphy more intricate.¹³⁰ The earliest were written in lampblack, but later under Muhammad II, better known as Mehmed the Conqueror, gold was introduced. The illumination also became increasingly elaborate. Under his son, Bayazid II, the background between the letters was filled with cobalt blue and decorated with flowers.¹³¹ Nevertheless, the calligraphy remained the basic structure of the *tughra*. The desire to get the calligraphy correct seems to have encouraged mechanical means of reproduction, and there are a few examples of pricked and stamped *tughras*.

Turks had already used the *tughra* in pre-Ottoman times.¹³² The earliest Ottoman example – that made for Sultan Orhan in 724/1324 – contains only the monogram proper, with three vertical projections formed by the *alifs* in Orhan and Osman. It lacks the three S-shaped tails, the loops, and the pincer-like projections.¹³³ The other elements were added in steps. Bayazid I's *tughra* added the title *khan* to his father's name, written as the larger of the two loops. Murad II's *tughra* included the epithet *al-muzaffar* (victorious), written at the top of the monogram. Mehmed's *tughra* added the adverb *da'iman* (eternally), written inside the smaller loop.

The basic shape of the Ottoman *tughra* was thus developed by the time of Mehmed the Conqueror, but it reached its classic form under Sulaymān (Figure 11.15). The sultan's given name, Sulaymān, is written at the bottom of the stacked letters, surmounted by his title *shah*. His father's name and title, Selim Shah, fill the third and fourth lines. The two names are connected by the genealogy *ibn* (son of), written in the inner loop, while the large outer loop contains the final *nun* of the word *khan*, with the initial *kha* written on the fifth line of the stacked letters and continuing on the left shaft representing *alif*. The epithet *al-muzaffar da'iman* fills the rest of the strokes. It

Figure 11.15 *Diagram of the tughra made for the Ottoman sultan Sulayman.*

The Ottoman sultan's emblem, or *tughra*, was composed of four parts: the monogram proper, the shafts, the loops on the left, and the projections on the right. It was drawn up at the sultan's accession and affixed to all documents issued in his name. This one reads Sulayman Shah ibn Selim Shah Khan, may his victory endure.



begins on the right shaft. The S-shaped stroke represents initial *alif*, which is connected to the straight shaft, representing *lam*. The following letters *mim*, *za'*, and *fa'* occupy the three loops at the line, with the upstroke stroke of *za'* taking up the middle shaft. Final *ra'* is written as a horizontal flourish in the middle of the smaller loop.

Symmetry and balance were clearly of great concern, as the emblem was meant to be recognized as much as read. To insure symmetry, the calligrapher fitted certain letters, such as the final *ha'* of the two *shahs*, next to each other on the bottom line. For balance, the calligrapher also added the two S-shaped flourishes on the middle and left shafts. Unlike the right flourish, which represents the initial *alif* in *al-muzaffar*,

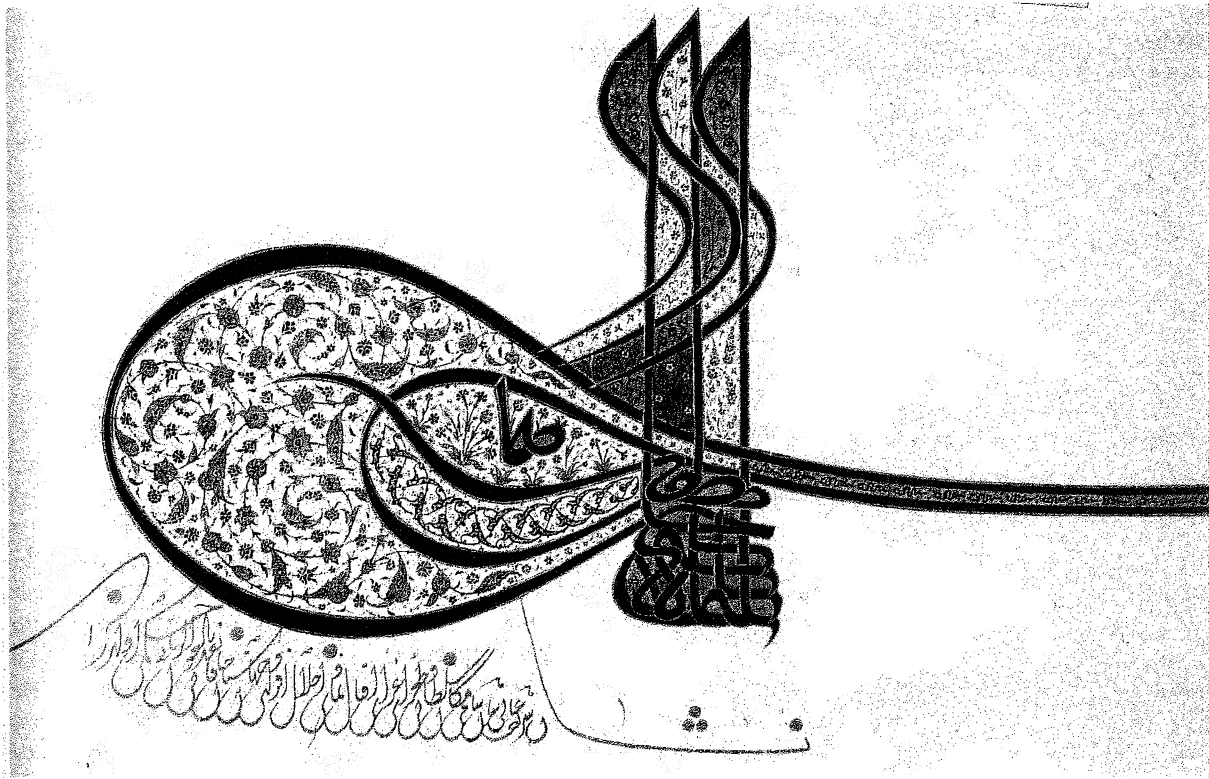


Figure 11.16 Land grant issued in the name of Sultan Sulayman and dated 21 Rabi' II 959/16 April 1552.

The document grants lands, together with the revenue from silk rearing in villages in the province of Tripoli in Lebanon, to the sultan's wife, Hürrem Sultan, for her foundations in Jerusalem. It is a fine example of *jali divani*. At the top is the sultan's emblem, or *tughra*, written in gold and blue and set against a ground of flowers and arabesque scrolls.

these two flourishes do not represent letters. They are unnecessary to the form and meaning, but add symmetry to the composition.

A simple form of *tughra*, rendered in gold or black, was used on most official correspondence and edicts, but a fancier type, written in blue outlined in gold, was used on documents written in the chancery hand known as *divani*. The spaces between the letters of the *tughra* are decorated with flowers and arabesque scrolls, with a different design in each interstice, and the varying designs make it possible to date detached *tughras* by comparing them with those still attached to dated documents. A good example is found on this edict issued by Sulayman on 21 Rabi' II 959/16 April 1552 (Figure 11.16).¹³⁴ The illuminator filled the inner loop of the *tughra* with plants and braided palmettes and the outer loop with spiraling scrolls sprouting feathery leaves and blossoms. Different areas are contrasted by setting the designs against a plain or a gold ground. Both layout and designs are similar to those found on a detached *tughra*, which can therefore be

dated to the late 1550s.¹³⁵ In other *tughras* issued under Sulayman, the illuminator added flowery branches that grow between the shafts. Sometimes he also extended the blue and gold scrolling pattern around the whole *tughra* to form a large triangular composition.¹³⁶

In addition to the artistic glory of the *tughra*, the scroll issued by Sulayman (Figure 11.16) is important for the historical value of its text. Written in fine *divani*, the document grants lands, together with the revenue from silk rearing in villages in the province of Tripoli in Lebanon, to the sultan's wife, Hürrem Sultan, for her foundations in Jerusalem. Most imperial documents begin with the *invocatio*, containing a short prayer with the names of God (He is God, the ruler, the mighty, etc.). This text was usually written in gold. Sometimes it was transcribed on a separate piece of paper that was attached to the top of the document above the *tughra*, and hence it has often been detached, as in this example. The text itself opens below the *tughra* with a line in gold *divani* beginning *nishan-i sharif* (this noble sign). This phrase was typically used on documents granting an imperial title, privilege, or property, but not on edicts. The opening was standardized in both content and execution, and the calligrapher exaggerated the ends of the letters to form a pattern of loops, sometimes punctuated by dots. The main text of the grant follows below in twelve lines of black *divani*, with gold used for highlights. As with *ta'liq*, the scribe extended the last letter of each line with a large loopy flourish to prevent additions. When the text extended over several sheets of paper, the secretary often wrote a small *sad* over the joins. This letter was an abbreviation for the phrase *sahh al-wasl*, attesting that the sheets were in correct order and a precaution against fraudulent replacement or interpolation. The calligrapher usually wrote the date on the bottom line, with the place where the document was issued written off to the left side preceded by the word *maqam*.

Over the course of the seventeenth and eighteenth centuries, the Ottoman *tughra* became more elaborately decorated until the illumination threatened to overwhelm and obscure the basic structure of the design. This process led to a basic reform by Mustafa Raqim at the beginning of the nineteenth century. Calligraphy instructor to Sultan Mahmud II (r. 1808–39), Mustafa Raqim was also charged with drawing up the designs for Ottoman currency, which also bears the *tughra*. Mustafa Raqim's new design for the *tughra* maintains the same basic format as the one used in earlier Ottoman times, but has different proportions and introduces more curvilinear and sloping strokes. The shafts bend slightly and slope to the left, ending with beveled terminals. The S-shaped curves or locks begin lower down on the shafts and are also more curvaceous and of uneven thickness. To balance the left-sloping pile of letters, Mustafa Raqim added a new phrase on the right, *'adli* (the just). It is written in an extremely stylized way, with *'ayn* virtually in independent, rather than initial form and the upstroke of *lam* as a central divider. To balance the epithet

adli on the upper right, the calligrapher often added his signature on the bottom left, written in the distinctive combination of *thuluth* and *tawqi'* scripts he used to sign other large compositions (Figure 11.11a).¹³⁷ Mustafa Raqim's new style of *tughra* was often reproduced as a large-scale composition that could be framed and mounted on pasteboard.¹³⁸ His distinctive design remained the standard until the Ottoman sultanate was abolished in 1922, and most *tughras* are distinguished as being before or after his reform.

The art of the imperial Ottoman document, written in *jali divani* and inscribed with the sultan's *tughra*, reached its apogee in the late nineteenth century, as in the appointment (Figure 11.17) issued by Sultan 'Abd al-Hamid II on 1 Rabi' II 1300/7 February 1885.¹³⁹ The text, penned in alternating lines of black and gold *divani*, appoints 'Abdallah Pasha, governor of Rumeli, to the Imperial Council of State. The words are written on a diagonal slope within bands that rise at the left side like the prow of a ship. Because of the shape of the cartouche, this form of writing *divani* is often called *safina* (ship). The calligrapher, presumably Nasih (1814–85), a calligrapher who worked in the imperial chancery, drove home the metaphor by exaggerating a few strokes, such as the tail of the final letter in each line, which swoops to the left like the rope securing the ship's prow.¹⁴⁰ Similarly, he extended a few upstrokes and descenders so that they project above and below the boat-shaped cartouche like oars, and he elongated one or two of the connectors in each line so that the scooped-out shape resembles a boat's seat.

The *tughra* at the top of the patent (Figure 11.17a) maintains the basic form in both content and style. Written in gold, it contains the name of the sultan, 'Abd al-Hamid Khan ibn 'Abd al-Majid Khan, with the standard epithet, *al-muzaffar da'iman*. The letters are painted in gold ink, without outlining. Instead of filling the loops of the letters with decoration, the illuminator surrounded the *tughra* with an ultramarine, turquoise, and gold floral scroll. Though finely executed, the design is rather static.¹⁴¹

In addition to documents, Ottoman calligraphers used a hanging script for literary compositions. This type of hanging script, which had been developed in fourteenth-century Iran, where it was called *nasta'liq*, was known, confusingly, in the Ottoman lands as *ta'liq* (Turkish *talik*), although it was not the same as the Persian *ta'liq*, which became the Ottoman *divani*. The small version of the hanging script used in Ottoman times was called *hurde* or *hafi* (small). It was standard for transcribing literary works and poetry. It was also the official script used by judges and muftis for non-binding legal opinions (*fatwa*). Along with the regular *naskh*, the small hanging script was also used for endowment deeds. It was typically unvocalized.

Calligraphers working at the Ottoman court in the late fifteenth century already practiced *nasta'liq*, and many of the Ottoman masters who transcribed Koran manuscripts in *naskh* and the other round scripts were also versed in the hanging scripts, using different

Figure 11.17 *Imperial appointment issued by Sultan 'Abd al-Hamid II on 1 Rabi' II 1300/7 February 1885.*

This patent appoints 'Abdallah Pasha, governor of Rumeli, to the Imperial Council of State.

The words are written on a diagonal slope within bands that rise at the left side like the prow of a ship and hence this form of *jali divani* is often called *safina* (ship). At the top is the sultan's *tughra*, a finely executed but rather static design.

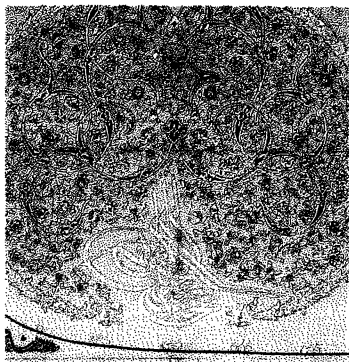
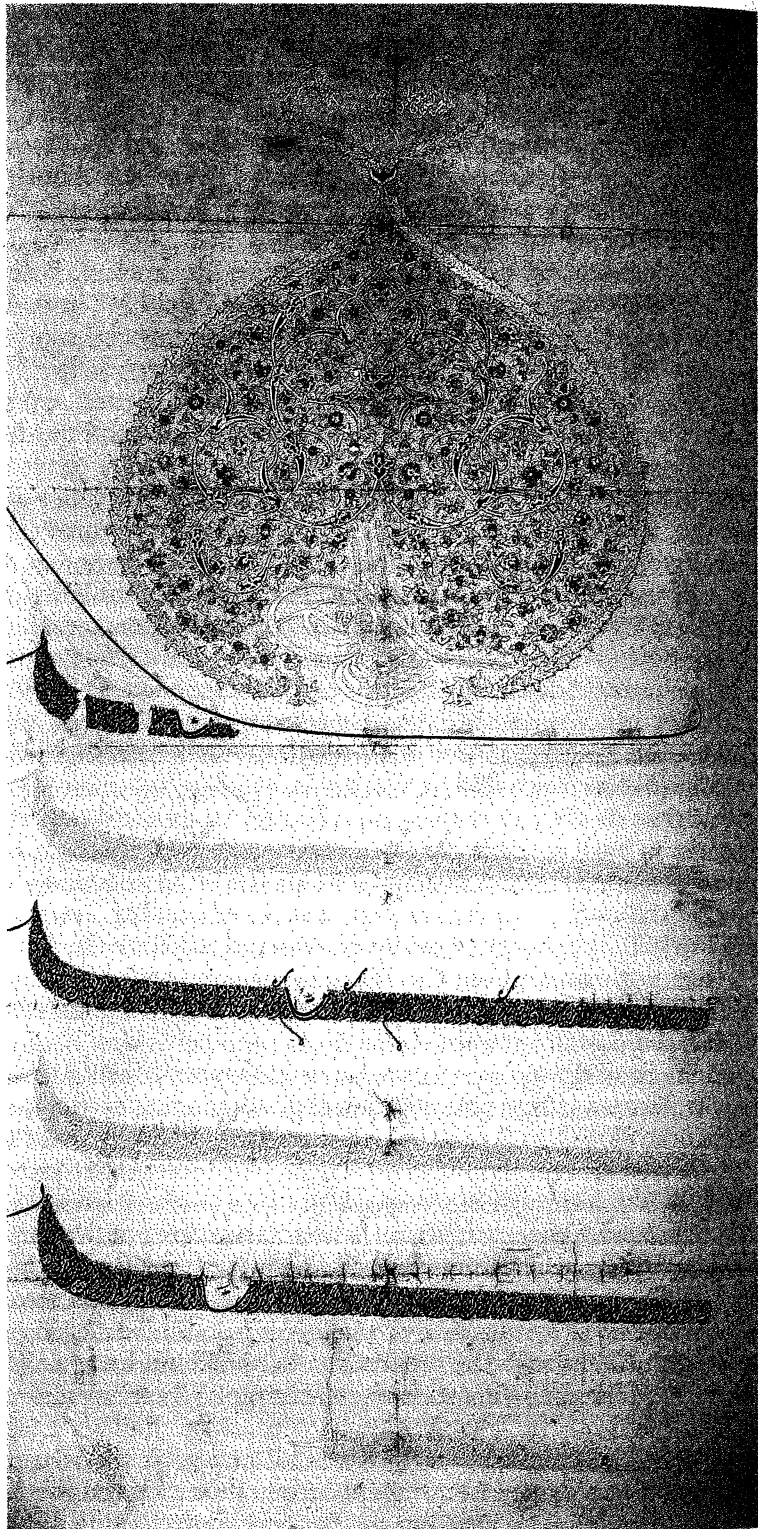


Figure 11.17a



styles in different parts of the same work. Shaykh Hamdallah, for example, was not only a master of the Six Pens, but also trained in *nasta'liq*. His copies of the Koran often end with divination tables (*falnama*) or other Persian texts written in this hanging script. Similarly, the scroll that he transcribed with samples of the Six Pens (TKS E.H. 2086) ends with a passage in *nasta'liq*.

It is no surprise that this type of hanging script developed in Iran became popular in Turkey, as many Iranian calligraphers emigrated to Istanbul in the late fifteenth and early sixteenth centuries, where they penned fine manuscripts in Persian, the literary language of the Ottoman court, and Ottoman Turkish. For example, Muhammad Sharif, a calligrapher from Tabriz, transcribed several fine manuscripts of the collected poems composed by Sultan Sulayman under the penname Muhibbi. The finest manuscript, dated on the last day of Sha'ban 973/21 March 1566, has double columns of *nasta'liq* separated by panels brilliantly illuminated by Kara Memi.¹⁴² The calligrapher may perhaps be the Muhammad Sharif mentioned by the Safavid chronicler Qadi Ahmad as a master of the *nasta'liq* style.¹⁴³

The Ottoman court in Istanbul assiduously collected manuscripts and calligraphic specimens (*qit'a*) penned by famous Iranian calligraphers in *nasta'liq* and other scripts. Many of the most sumptuous calligraphic albums are preserved in the court treasury there.¹⁴⁴ Works by Safavid masters of *nasta'liq* from the court of Tahmasp were particularly prized, and many of the finest works by Shah Mahmud Nishapuri are found in Istanbul. One is the unusual Koran manuscript he penned in *nasta'liq* (Figure 10.7) that Tahmasp presented to the Ottoman sultan Murad III on his accession in 1574. Another is the Shah Mahmud Nishapuri Album, whose opening double page in *nasta'liq* is signed by the master.¹⁴⁵ Each page contains the Fatiha (Sura 1), but the layout differs slightly on each page, probably to show Shah Mahmud's mastery of this elastic script.

One of the most striking images in the Shah Mahmud Nishapuri Album is a cut-out of a lion by Mir 'Ali Haravi (Figure 10.15). Not only did its form of a calligraphic lion become popular with the Ottomans, but so did its cut-out technique, an art that reached dazzling heights under Sulayman. One of the most stunning examples (Figure 2.7) is a short manuscript signed by the cut-out calligrapher 'Abd al-Hayy 'Ali.¹⁴⁶ The final folio (8b) contains a dedication to the sultan's son Shahzada Muhammad (d. 1543), and so the work can be dated c. 1540. The text contains forty short Traditions, each written horizontally in one line in white *tawqi'* pasted on pages of deep rose or olive-green. The first Tradition begins with the standard opening: 'The Prophet, upon him be peace, said' (*qala al-nabi 'alayhu al-salam*). The remainder start 'And also from him' (*wa 'anhu*), sometimes adding the benediction 'upon him be peace' (*'alayhu al-salam*) if the hadith was short enough to leave sufficient space for the qualifier. For example, the hadith written in the middle line of the left page begins: 'And also from him, upon him be peace,' followed by a gold roundel marking

the beginning of the short Tradition: 'The key to prayer is ritual ablution' (*miftah al-salat al-tahur*). Each Tradition is followed by a two-line exposition in Persian verse which has been cut-out in light blue or tan *nasta'liq*. The Persian verses in the middle of the page are set diagonally, but the Traditions at the bottom of the pages are followed by two hemistiches set horizontally in boxes, with the final two paraphrasing the Tradition written in corresponding boxes at the top of the next page. This layout makes for a symmetrical arrangement on facing pages, though to finish the Persian verse corresponding to the Arabic hadith at the bottom, one needs to go to the next page. Layout and symmetry have taken precedence over readability.

The Arabic text in *tawqi'* is marked by unauthorized connections between letters. The most common is *alif* to *lam*. This combination makes up the Arabic demonstrative prefix *al-* (the), occurring frequently, three times, for example, in the middle line on the left page. *Waw* is often connected to the following letter or word, as in the word *al-salat* in the same line or the phrase *wa-'anhu* at the beginning of each hadith. This rising tail of *waw* forms a sublinear rhythm and emphasizes the strong horizontal quality of the script. These connections also made it easier for 'Abd al-Hayy to cut-out the letters, but they also make it difficult to maintain the necessary distance between letters.

In contrast to the horizontal *tawqi'* of the Arabic hadith, 'Abd al-Hayy used the hanging *nasta'liq* for the Persian verses. Each word is written on a sharp diagonal, and final letters, particularly *kaf* and *ta'*, as well as medial *sin/shin*, are lengthened and widened to add internal rhythm. The elastic and elongated *nasta'liq* contrasts with the compact and compressed *tawqi'*, a contrast heightened by color. The sumptuousness of the calligraphy is enhanced by corner panels filled with exquisite illumination, probably by Kara Memi, and the whole page set within gold-flecked marbled borders. The binding is equally astounding: it displays a garden that has been cut-out, pasted to pasteboard, and covered with varnish. Composed of roses, tulips, prunus, violets, dianthus, and iris, the garden marks the first known appearance of florists' flowers in Ottoman court art.

The hanging *nasta'liq* script remained popular in Ottoman lands for centuries for both manuscripts and calligraphic specimens. The greatest master in the eighteenth century was Muhammad As'ad (d. 1798), known as Yasari (the left-handed), because he was paralyzed on his right side and forced to use his left hand.¹⁴⁷ Like most calligraphers of the time, Muhammad Yasari designed both monumental inscriptions and smaller works on paper.¹⁴⁸ He is particularly renowned for his calligraphic specimens (*qit'a*) intended for albums. Many copy compositions by the Safavid master of *nasta'liq*, Mir 'Imad (Figure 10.9), such as this page (Figure 11.18) that Muhammad Yasari transcribed for his diploma in 1167/1754.¹⁴⁹ His *nasta'liq* so closely follows Mir 'Imad's style that the Ottoman calligrapher was sometimes known as 'Imad-i Rum (the 'Imad of Anatolia).

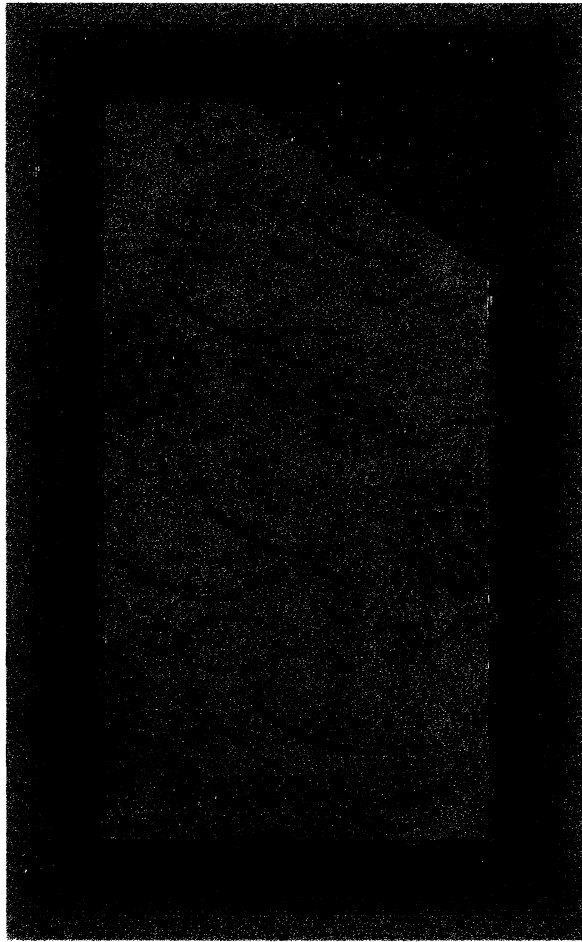


Figure 11.18 Calligrapher's license with a quatrain (rub'a'i) copied by Muhammad As'ad Yasari in 1213/1798 from an exemplar by Mir 'Imad (Figure 10.9).

Muhammad As'ad, nicknamed Yasari (the left-handed), was the major practitioner of *nasta'liq* in the Ottoman lands during the eighteenth century. He perfected the style of the seventeenth-century master, Mir 'Imad, and penned quatrains on the diagonal. Like Mir 'Imad, Yasari's script is marked by swooping curves that widen on the left and are often set in descending rows, but is slightly more spacious.

Muhammad Yasari's work follows Mir 'Imad's composition in both diagonal layout and *nasta'liq* characterized by elongated curves that widen at the end of the stroke. Nonetheless, tiny but significant differences distinguish copy (Figure 11.18) from original (Figure 10.9).¹⁵⁰ Muhammad Yasari's lines are slightly more sloped and his calligraphy is slightly more spacious. He standardized letter shapes, notably final *nun* and *lam*. He also smoothed out the line. His copy, for example, shows slightly less difference between thick and thin strokes in the last word of the poem, *nist*. Most importantly, Muhammad Yasari also changed the spacing to set off words with slightly wider spaces. In the opening words of line two, for example, he widened the space around the second word, *dar*, to set it off from the first word *kih* and the third *tab'*. Such spacing was important in a region where Persian was not the native language. His regularization of shape and spacing enhanced readability, but decreased flexibility. In short, Muhammad Yasari did for Mir 'Imad what Shaykh Hamdallah had done for Yaqt: regularize the letters and spacing.

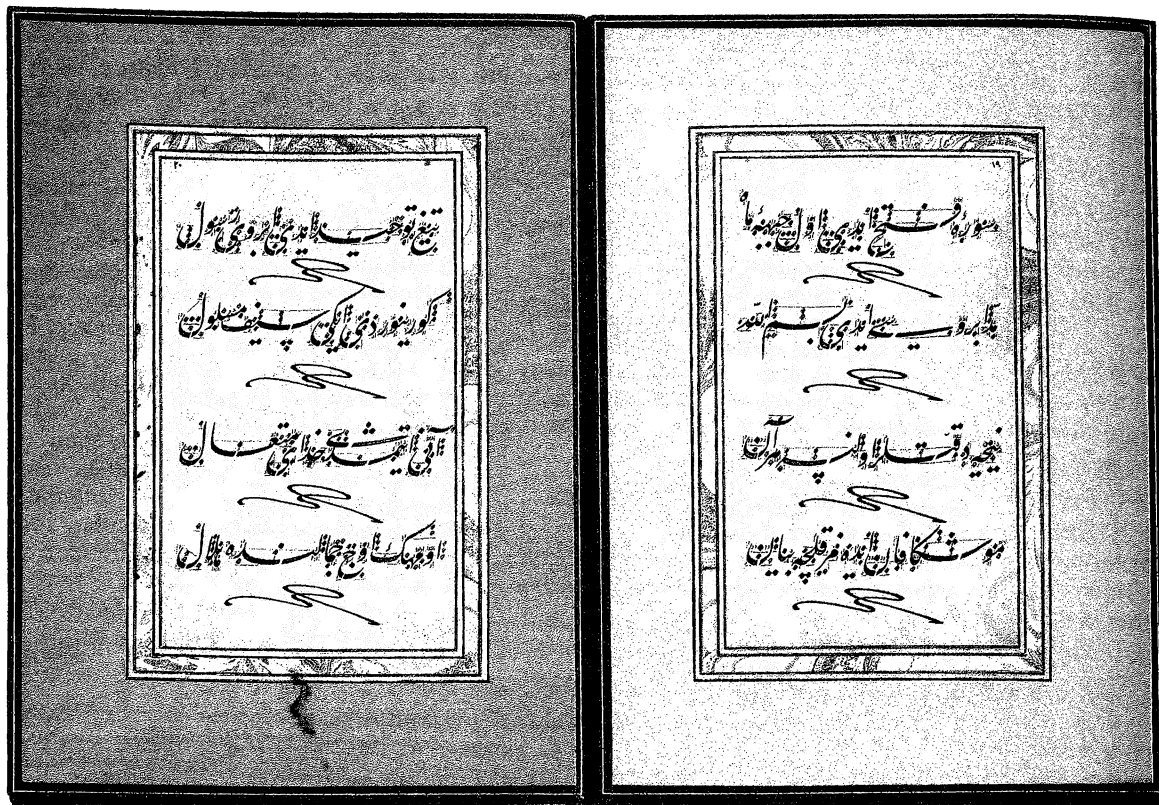


Figure 11.19 Page from an album with a poetic description of the Prophet by Muhammad Khaqani transcribed by Hajji Nazif.

Hajji Nazif penned this album as an exact copy (*taqlid*) of an original by Yasarizada Mustafa 'Izzet, who perfected the rules for the hanging *ta'liq* that had been formulated by his father Muhammad Yasari. To enliven the page, Nazif changed the dots measuring the letters from black to red ink and added the exhortation *sa'y* (persevere) in a swooping flourish under each line.

Muhammad Yasari's son, Mustafa 'Izzet, known as Yasarizada, is said to have perfected the rules set down by his father for the *nasta'liq* style used in Ottoman times and known there as *ta'liq*.¹⁵¹ As in Iran, the letters were measured in terms of dots formed by pressing the nib of the pen on the paper. Succeeding calligraphers practiced by making exact copies (*taqlid*) of Yasarizada's work, as with this page (Figure 11.19) from an album penned at the turn of the nineteenth to twentieth century by Hajji Nazif (1846–1913).¹⁵² The text contains Khaqani's ode on the Prophet, written as twenty-four specimens (*qit'a*) penned in a hanging script on marbled paper. These two pages describe the Prophet's eyebrows. As is typical in the hanging script, words are unvocalized. Each letter is measured in terms of dots. Yasarizada had penned his dots in the same black ink used for the text, but Hajji Nazif enlivened the page by using red for the dots. He also added the exhortation *sa'y* (persevere) under each line of the poem, a motif frequently used to separate lines in these teaching exercises.¹⁵³ The sweeping flourish fills the space between the lines and adds visual interest and unity to the page. It also shows the calligrapher's discipline and skill, as all eight examples, written freehand, are virtually identical.

In addition to literary texts on paper, Ottoman calligraphers in the nineteenth century used the hanging *nasta'liq/ta'liq* script for other

works. The small size was also used for legal opinions (*fatwa*), and a large size was used for large-scale compositions that could be hung on the wall (*lehva*).¹⁵⁴ Calligraphers also inscribed the occasional leaf in gold ink using *nasta'liq/ta'liq* script. The texts typically contain prayers or invocations in Arabic, though one unusual example contains a prayer in Turkish, saying that 'I drown in the sea of insubordination; I plead for your help, O messenger of God.'¹⁵⁵ In general, these examples show a flatter baseline than the hanging *nasta'liq* used for Persian.

As part of his program of modernization following the establishment of the Turkish Republic in 1924, Atatürk outlawed the use of Arabic script. Calligraphers continued to maintain traditional scripts, especially for religious purposes, but they became increasingly stylized and removed from daily life. At the end of the century, however, interest in calligraphy revived, and in modern times Turkey has become one of the main centers of Islamic calligraphy (see Chapter 13).

Notes

1. Annemarie Schimmel, *Islamic Calligraphy*, Iconography of Religions XXII, 1 (Leiden, 1970), pls. 30–1, illustrates various of these textiles as well as a scene of men embroidering the *kiswa* in Egypt in the 1930s. For an example of one of the eight gold-embroidered bands (known as *hizam*, belt) for the *kiswa*, probably made in Egypt in the nineteenth century, see M. B. Piotrovsky and J. M. Rogers, *Heaven on Earth: Art from Islamic Lands, Works from the State Hermitage Museum and the Khalili Collection* (Munich, 2004), no. 47.
2. Farhad Pasha (d. 982/1574–5), a student of Ahmad Karahisari, for example, was a vizier; Yusuf known as Demirci Kulu (d. 1020/1611–12) was a cannon-founder. See J. M. Rogers and R. M. Ward, *Süleyman the Magnificent* (London, 1988), 55. In addition to these professional artists and teachers whose names and biographies have been passed down for generations, other practitioners included professional copyists, who worked on commission, and salaried teachers of penmanship, who often instructed the young in primary schools. There were also amateurs who devoted their spare time to writing. As these calligraphers did not generally take on pupils, these groups were not as influential, and their names and styles were not transmitted in the written record.
3. One of the best-known practitioners of the art at the dawn of the twenty-first century is Uğur Derman; for a biography, see Chapter 13. Derman has been a student and friend of many of the last practitioners of the traditional styles, and his work is particularly valuable for its discussion of materials and techniques.
4. See the charts of these masters given in the various surveys of Ottoman calligraphy, such as M. Uğur Derman, *Letters in Gold: Ottoman Calligraphy from the Sakip Sabanci Collection, Istanbul* (New York, 1998), 186–8; Manijeh Bayani, Anna Contadini, and Tim Stanley, *The Decorated Word: Qur'ans of the 17th to 19th Centuries*, The Nasser D. Khalili Collection of Islamic Art (London, 1999), 66–75.
5. Sulaymān Sa'd al-Dīn Efendi Mustaqīmzāda, *Tuhfat-i Khattātīn*, ed. Mahmud Kemal (Istanbul, 1928). Although the treatise includes

calligraphers working in the Arab and Persian lands, it is most valuable for its information about Ottoman calligraphers active in the seventeenth and eighteenth centuries. Mustaqimzada drew upon a long Ottoman tradition of biographical writing. His predecessors include Suyoluzada Mehmed Najib (d. 1758), author of the *Dawhat al-kuttab* (Genealogy of the Scribes), and Nafiszada Ibrahim Efendi (d. 1650), author of the *Gulzar-i savab* (Rose Garden of Proper Conduct). One of the earliest authors working in this tradition was the poet and historian Mustafa 'Ali, whose *Manaqib-i hunarvaran* was written for the Ottoman sultan Murad III in 995/1586–7. It is a major source not only for the Ottomans, but also for the Safavids (for a detailed description of this work, see Chapter 10). Modern Turkish scholars have long been aware of the importance of these sources. Kemal's edition of Mustaqimzada in itself marked a watershed: it was the last official book printed in Arabic script in Turkey before Atatürk's reforms.

6. On al-Zabidi, see *The Encyclopedia of Islam, New Edition*, ed. H. A. R. Gibb and others (Leiden, 1960), 'Muhammad Murtaḍa,' Stefan Reichmuth, 'Murtaḍa Az-Zabīdī (d. 1791) in Biographical and Autobiographical Accounts: Glimpses of Islamic Scholarship in the 18th Century,' *Die Welt des Islams* 39, no. 1 (1999): 64–102; François Déroche, 'Istanbul Seen from Cairo,' in *M. Uğur Derman 65 Yaş Armağanı*, ed. Irvin Cemil Schick (Istanbul, 2000), 261–9. Born in the Indian city of Bilgram in 1145/1732, al-Zabidi traveled to the Yemen and the Hijaz before settling in Cairo in 1167/1754. There, in addition to his monumental Arabic dictionary *Taj al-'arus*, he wrote a short treatise on calligraphy entitled *Hikmat al-ishraq ila kuttab al-afaq*, completed on 12 Dhu'l Hijja 1184/29 March 1770 (it has been published as Muḥammad Murtaḍa al-Zabīdī, 'Ḥikmat al-ishraq ila kuttab al-āfāq,' in *Nawādir al-Makḥṭūṭāt* 5, ed. 'Abd al-Salām Ḥārūn [Cairo, 1954], 50–99). Though not a professional calligrapher himself, al-Zabidi was a learned scholar with a deep interest in genealogy and language. He studied calligraphy with a pupil of Hasan al-Rushdi, to whom he dedicated his treatise. Al-Zabidi, like Hasan al-Rushdi, died from the plague in 1205/1790–1.

Like other chroniclers in the Ottoman period, al-Zabidi presented the history of calligraphy as a series of master–pupil relations, but his account differs from the standard ones. He skipped most of the masters of the Six Pens, beginning instead with Shaykh Hamdallah and tracing a chain of transmission corresponding to that given in the license granted to the master calligrapher of his day, Hasan al-Rushdi (the license survives in the library of McGill University; see Adam Gacek, 'The Diploma of the Egyptian Calligrapher Hasan al-Rushdī,' *Manuscripts of the Middle East* 4 [1989]: 44–55). In addition to the pupils of Shaykh Hamdallah and Darvish 'Ali, al-Zabidi added a section on the transmission of Shaykh Hamdallah's school in Egypt in the eighteenth century. The work is basically a genealogy linking his time, as exemplified by Hasan al-Rushdi, to the past.

7. Derman, *Letters in Gold*, 7–15; I. Gündag Kayaoğlu, 'Divitler,' in *M. Uğur Derman 65 Yaş Armağanı*, ed. Irvin Cemil Schick (Istanbul, 2000), 353–68. It is generally assumed, though not explicitly proven nor necessarily true, that the same materials and tools were used throughout the period.
8. The large one was typically used for the three majuscule versions of the Six Pens, known in Turkish as *sülüs*, *muhakkak* and *tevki*, as well as the hanging *ta'liq*; the smaller one for *nesih*, *reyhanî*, and *rikâ*.

9. Şevket Rado, *Türk Hattatları*. XV. Yüzuıldan Günümüze Kadar *Gelmis Ünlü Hattatların Hayatları Ve Yazılarından Örnekler* (Istanbul, 1985), 78.
10. Irvin Cemil Schick, 'Tâczâde Risâlesi'ne Göre Sülüs Hattına Dair Bazı İstılâhat,' in M. Uğur Derman *65 Yaş Armağanı*, ed. Irvin Cemil Schick (Istanbul, 2000), 456–82, compiled the terminology used in this particular treatise, defining the terms with the help of other sources, both primary and secondary, and writing them out as an illustrated glossary. I thank him for his help in translating this example.
11. Cited in Jonathan M. Bloom, *Paper before Print: The History and Impact of Paper in the Islamic World* (New Haven, 2001), 222.
12. See Ismail E. Erünsal, 'The Development of Ottoman Libraries from the Conquest of Istanbul (1453) to the Emergence of the Independent Library,' *Belleten* 60, no. 227 (1996): 93–124; Lâle Uluç, 'Ottoman Book Collectors and Illustrated Sixteenth Century Shiraz Manuscripts,' *Revue du Monde Musulmane et de la Méditerranée* 87–8 (1999): 85–107.
13. In addition to Derman's catalogue of the Sabanci Collection (*Letters in Gold*), the best illustrated catalogues are those of Ottoman works in the Khalili Collection, including Koran manuscripts (Bayani, Contadini, and Stanley, *The Decorated Word*); individual compositions (Nabil F. Safwat, *The Art of the Pen: Calligraphy of the 14th to 20th Centuries*, The Nasser D. Khalili Collection of Islamic Art [London, 1996]); and Ottoman art (J. M. Rogers, *Empire of the Sultans: Ottoman Art from the Khalili Collection*, 4th edn [Alexandria, VA/London, 2000]). The catalogues to the splendid exhibition of works made for Sulayman (Esin Atıl, *The Age of Sultan Süleyman the Magnificent* [Washington, DC, 1987]; Rogers and Ward, *Süleyman the Magnificent*) provide some examples from Turkish museums, as does Derman's survey of Islamic calligraphy (*The Art of Calligraphy in the Islamic Heritage*, trans. Mohamed Zakariya and Mohamed Asfour [Istanbul, 1998]), but the publication of more public collections will be a welcome event for the study of Ottoman calligraphy.
14. Hamdallah's father, Mustafa Dede, was a Suhrawardi shaykh who had emigrated from Bukhara to Amasya, where Hamdallah was raised. He followed his father's affiliation and became a Sufi, but switched his allegiance to the Naqshbandiyya and was also associated with the popular Sufi order called the Khalwatiyya, or in Turkish, Helvati. In his lifetime Hamdallah was known as Ibn Shaykh (son of the shaykh), the form he usually used to sign his work. Derman (Derman, *Art of Calligraphy*, 211) reported that he had never encountered one signed 'Shaykh Hamdallah.'
15. The court chronicles tend toward the hagiographic and stress the calligrapher's personal connection to Mehmed's son, Sultan Bayazid. The recent work by Julian Raby and Zeren Tanındı, *Turkish Bookbinding of the 15th Century: The Foundations of an Ottoman Court Style*, ed. T. Stanley (London, 1993), 96–100, shows that the written sources need to be balanced by information taken from extant works in order to compile a more plausible biography. See also the collection of his works amassed by Muhittin Serin, *Hattat Şeyh Hamdullah* (Istanbul, 1992). Short biographies of Hamdallah's life are also available in Jane Turner (ed.), *The Dictionary of Art* (London, 1996), 'Hamdullah,' Derman, *Letters in Gold*, 46; Derman, *Art of Calligraphy*, 211.
 Shaykh Hamdallah studied calligraphy under Khayr al-Din Mar'ashi, learning the Six Pens canonized by Yaqut and his followers. While in

Amasya, Shaykh Hamdallah probably became acquainted with the Ottoman prince Bayazid, who was appointed the city's governor at the age of six in 1454 and served there until his accession in 1481. Shaykh Hamdallah is said to have tutored one of Bayazid's sons and even the prince himself. The calligrapher's connection with the royal family may have encouraged him to move to Istanbul, where he copied at least two medical books made for Mehmed near the end of his reign (Raby and Tanindi, *Turkish Bookbinding*, no. 23; Derman, *Art of Calligraphy*, no. 44) in the unvoiced *naskh* typical of Yaqut.

Shaykh Hamdallah prospered in the Ottoman capital under the benevolent patronage of Mehmed's son Bayazid. Scribe and patron apparently had a warm personal relationship, and the sultan is said to have given the scribe a studio within the imperial palace and even to have held the inkwell and adjusted the pillows while the master worked. Court registers record that Shaykh Hamdallah received a salary of thirty *akçe*, or silver pieces, daily. This was the equivalent of the salary paid the second tutor to the Ottoman princes, suggesting that Shaykh Hamdallah continued to work as the royal tutor in the capital. In the colophon to one sumptuous manuscript of the Koran finished during the first ten days of Dhu'l-Hijja 901/11–20 August 1496 (TKS E.H. 72; Raby and Tanindi, *Turkish Bookbinding*, no. 38), Shaykh Hamdallah signed himself 'the royal scribe' (*katib al-sultani*), showing that he worked in the imperial scriptorium, and in the colophon to another undated manuscript of the Koran (Geneva, Prince Sadrudin Aga Khan Collection; Martin Lings and Yasin Safadi, *The Qur'ān* [London, 1976], no. 129; A. Welch and S. C. Welch, *Arts of the Islamic Book: The Collection of Prince Sadruddin Aga Khan* [Ithaca, NY and London, 1982], no. 4), he signed himself the perfect *hajji* and head of the scribes, indicating that he had performed the pilgrimage and that he was in charge of the imperial scriptorium.

After Bayazid's abdication, Shaykh Hamdallah's star fell. His Khalwatiyya connections may have made him unwelcome at the court of Sultan Selim II ('The Grim'), and on the heels of the sultan's accession in 1512, the calligrapher left Istanbul, taking up residence in a village on Mt Alemdağ, where he had often gone for spiritual retreat. Almost immediately after the accession of Sulayman in 1520, Hamdallah returned to Istanbul, but died shortly thereafter and was buried in Üsküdar, where he owned estates given him by Bayazid.

Shaykh Hamdallah's legacy lived on not only in the works of his many followers, but also in legend. Like Yaqut, Shaykh Hamdallah is said to have been a master of the Six Pens, and later chronicles include many anecdotes stressing his connection to the master, using the same epithet (*qiblat al-kuttab*, cynosure of calligraphers) for both. Sultan Bayazid, for example, is said to have questioned whether Hamdallah's work was equal to that of his famous predecessor and had seven examples of the master's hand brought from the imperial library for Shaykh Hamdallah to study. The scribe closeted himself with the manuscripts, and when he emerged, to everyone's amazement, he had not only mastered but improved on all of Yaqut's scripts. This incident recalls that of the Buyid patron 'Adud al-Dawla and his calligrapher Ibn al-Bawwab, who perfectly imitated the script of his predecessor Ibn Muqla. In this case, Shaykh Hamdallah outdid his predecessor, not just imitating but perfecting the work of his artistic master. Similarly, Shaykh Hamdallah is said to have had seven pupils, one more than the six who had followed Yaqut. Although probably apocryphal, these anecdotes are

- nonetheless instructive, for they show that by the fifteenth century calligraphic status was conferred mainly by association with the tradition of Yaqut. Later commentators emphasized the relationship, making Hamdallah the 'Yaqut of Anatolia' and Amasya the 'Baghdad of Anatolia.' Such rewriting of history had already occurred with Yaqut.
16. Serin, *Şeyh Hamdullah*, put together a list of 115 works: 30 manuscripts of the Koran, 50 partial manuscripts, 121 albums with calligraphic specimens, 8 religious works, and 6 prayer books. The proliferation of single-page specimens and the canonization of Shaykh Hamdallah's style also meant that later calligraphers often copied his work, including his signature. Thus, the colophon in an album (London, Khalili Collection, ms. 518; Safwat, *Art of the Pen*, no. 57) is probably not the hand of Shaykh Hamdallah, as his father's name Mustafa is misspelled, with the final *alif maqsurah* mistakenly written with an *alif* instead of the requisite final *ya*. The desire to have an authentic example of Shaykh Hamdallah's work (with the commensurate increase in prestige and value) means that many specimens are unquestionably accepted as his hand. It remains for scholars to establish reliable criteria for discerning original works by Shaykh Hamdallah from later copies and imitations. Spelling may be one method.
 17. Istanbul, TKS, E.H. 2086; *The Anatolian Civilisations III Seljuk/Ottoman* (Istanbul, 1983), no. E.15; Serin, *Şeyh Hamdullah*, 87 and pls. 184–8.
 18. For example, a medium-sized *muhaqqaq* in Shaykh Hamdallah's scroll (Serin, *Şeyh Hamdullah*, pl. 186) is labeled *muhaqqaq al-khafī* (literally, the *muhaqqaq* of the hidden), a term similar to *al-naskh al-fadda* (literally, the *naskh* for divulging secrets) used by al-Tayyibi for a medium-sized *naskh*.
 19. Istanbul, TKS, ms. E.H. 2084; Serin, *Şeyh Hamdullah*, 87 and pls. 129–34.
 20. E.g., IUL A6587, Derman, *Art of Calligraphy*, no. 45 and Khalili Collection, CAL7 and ms. 28; Safwat, *Art of the Pen*, nos. 55–6.
 21. Serin, *Şeyh Hamdullah*, 81.
 22. The Ottomans, like many before them, typically commissioned fine copies of the Koran divided into thirty sections (*ajza*'), as well as many fine boxes of inlaid wood and ivory designed to hold the thirty-part copies donated to the large complexes founded by the sultans and their retinue. As well as complete manuscripts, famous calligraphers often transcribed sections or parts of the Koran, notably the last *juz'* (Suras 78–114), known as *juz' amma* (Turkish *amme cüz'ü*) after the opening word of Sura 78, *'amma* (concerning). The section that contains the shortest and most poetic chapters of the Koran, it remains popular today, and is the one presented and translated by Michael Anthony Sells (ed.), *Approaching the Qur'an: The Early Revelations* (Ashland, OR, 1999). Another popular selection was Sura 6 (al-An'am, The Cattle), read in the hope of blessing, often followed by other frequently recited *suras* such as 36 (Ya Sin), 55 (al-Rahman) and 67 (al-Mulk). These chapters, selections, or single *juz'* were made to display the calligrapher's hand; they show that his work was deemed worthy of collection already during his lifetime.
 23. Raby and Tanindi, *Turkish Bookbinding*, nos. 37, 38, 40, and 41.
 24. Istanbul, TKS, ms. A.5; *The Anatolian Civilisations III Seljuk/Ottoman*, no. E.16; Raby and Tanindi, *Turkish Bookbinding*, no. 40.
 25. Putting together archival records and extant manuscripts, Raby and Tanindi, *Turkish Bookbinding*, 204, suggested that the artists themselves

- bore the costs for producing these luxury books in expectation of a substantial return.
26. This double page can be compared, for example, with an earlier one in Istanbul dated 897/1491–2 (TKS Y913; Sheila S. Blair and Jonathan M. Bloom, *The Art and Architecture of Islam, 1250–1800*, The Pelican History of Art [London and New Haven, 1994], fig. 296; Serin, *Şeyh Hamdullah*, fig. 182), which has different spacing of the verses and longer bowls and extenders. See also the fine copy penned just before his death (IUL A6552, Derman, *Art of Calligraphy*, no. 52).
27. Hamdallah established a family line that passed to his son Mustafa Dede (d. 945/1538), who taught his son Darvish Muhammad (d. 1001/1592–3), who in turn taught his son Pir Muhammad Efendi (d. 988/1580). At least a dozen members of Hamdallah's family became calligraphers, and many members of the Khalwatiyya continued his tradition of calligraphy.
28. Later calligraphers often practiced by copying his hand. Yanni Petsopoulos (ed.), *Tulips, Arabesques and Turbans: Decorative Arts from the Ottoman Empire* (New York, 1982), figs. 163 and 164, illustrates a calligraphic specimen penned by Shaykh Hamdallah juxtaposed to its close copy penned by the nineteenth-century calligrapher and musician Qadi-ʿaskar Mustafa ʿIzzet Efendi. The script is virtually identical but the decoration differs.
29. Mamluk authors considered *ghubar* to be a smaller version of the curvilinear *thuluth* (see Chapter 8), but few, if any, Ottoman sources have anything to say on the subject. Modern Turkish authors (e.g., Derman, *Letters in Gold*, 15) consider *ghubar* a smaller version of *naskh*, probably because *ghubar* was used for Koran manuscripts, which were traditionally written in *naskh*.
30. A *sanjak* Koran manuscript in the Khalili Collection (QUR425; Rogers, *Empire of the Sultans*, no. 20), for example, is attributed to the first half of the sixteenth century because its illumination is comparable to that in a Koran manuscript copied for Sultan Sulayman by ʿAbdallah ibn Ilyas and illuminated by Bayram ibn Darvish Shir in 930/1523–4 (TKS, EH 58; Atil, *Süleyman the Magnificent*, no. 8).
31. Istanbul, TKS 2/2896; Atil, *Süleyman the Magnificent*, no. 21; Rogers and Ward, *Süleyman the Magnificent*, no. 27.
32. Several examples are published in Atil, *Süleyman the Magnificent*, nos. 9b and 20; Rogers and Ward, *Süleyman the Magnificent*, nos. 15b and 26.
33. There is no readily accessible study of this master nor his works. Meanwhile, see the short bibliographies in Turner, *DoA*, 'Hafiz Osman,' Derman, *Letters in Gold*, 72; Derman, *Art of Calligraphy*, 221.
34. Hafiz Osman's lack of government position meant that he was able to travel widely throughout the Ottoman domains. For example, he visited Egypt in 1672 and made the pilgrimage to Mecca in 1676–7. During his travels he signed and dated many calligraphic specimens, and a comprehensive recording and study of these works would flesh out his career.
35. The calligrapher is said to have suffered a stroke shortly thereafter and died at home three years later on 29 Jumada I 1110/3 December 1698. He was buried in the Sünbül Efendi Sufi Lodge in Istanbul.
36. London, Khalili Collection, QUR9; Bayani, Contadini, and Stanley, *The Decorated Word*, no. 22. The section comprises twenty-eight folios of medium-size, fine-quality paper. Each page contains nine lines of a smooth *naskh* script.

37. According to Derman, *Letters in Gold*, 74; *Art of Calligraphy*, 221, Hafiz Osman penned twenty-five copies of the Koran. The Sabanci Collection owns a small Koran manuscript in his hand finished in Ramadan 1093/September 1682, a selection of chapters copied in 1086/1675-6, and a copy of Sura 6 (*al-An'am*, The Cattle) transcribed in 1095/1684-5 (see Derman, *Letters in Gold*, nos. 15, 16 and fig. 13).
38. The *hilya* became popular under the Ottomans. For a general description, see Safwat, *Art of the Pen*, 46-9; Derman, *Letters in Gold*, 34-7. This example (Dublin, CBL T559.4) was published by David James, *Islamic Masterpieces of the Chester Beatty Library* (London, 1981), no. 40. Another dated 1101/1690 (TKS GY 1483) is illustrated in Derman, *Art of Calligraphy*, no. 78.
39. See, for example, the two calligraphic specimens (TIEM no. 246 and TKS 3655) illustrated in Petsopoulos, *Tulips, Arabesques and Turbans*, nos. 173 and 174. On the *hilya* dated 1101/1690, Hafiz Osman inserted the last two syllables (*-limin*) above the end of the line in a smaller script.
40. See, for example, the albums of specimens calligraphed by Sekerzade Mehmed Efendi in 1158/1745-6; Sabanci Collection, no. 208; Derman, *Letters in Gold*, no. 21, and the two specimens in the Khalili Collection by Qadi-'askar Mustafa 'Izzet dated 1288/1871-2 and 1291/1874-5; Safwat, *Art of the Pen*, nos. 69-70.
41. Hafiz Osman's hand was so revered that lithographed copies of his Koran manuscripts were produced, first in Istanbul beginning in 1871-2 and also in Europe; Hartmut Bobzin, 'From Venice to Cairo: On the History of Arabic Editions of the Koran,' in *Middle Eastern Languages and the Print Revolution, a Cross-Cultural Encounter, a Catalogue and Companion to the Exhibition*, ed. Eva Hanebutt-Benz, Dagmar Glass, and Geoffrey Roper (Westhofen, 2002), 167 and notes 74-5.
42. Arabic printing was the subject of a large exhibition and symposium held in Mainz in 2002; Eva Hanebutt-Benz, Dagmar Glass, and Geoffrey Roper, (eds), *Middle Eastern Languages and the Print Revolution, a Cross-Cultural Encounter, a Catalogue and Companion to the Exhibition* (Westhofen, 2002).
43. Klaus Kreiser (ed.), *The Beginnings of Printing in the Near and Middle East: Jews, Christians and Muslims* (Wiesbaden, 2001), no. 1; Hanebutt-Benz, Glass, and Roper, *Middle Eastern Languages*, 66. The colophon mentions Fano, but it was likely done at Venice; see Geoffrey Roper, 'Early Arabic Printing in Europe,' in *Middle Eastern Languages and the Print Revolution, a Cross-Cultural Encounter, a Catalogue and Companion to the Exhibition*, ed. Eva Hanebutt-Benz, Dagmar Glass, and Geoffrey Roper (Westhofen, 2002), 131 and n. 12 with references.
44. The decree is translated in George N. Atiyeh (ed.), *The Book in the Islamic World: The Written Word and Communication in the Middle East* (Albany, 1995), 283.
45. Hanebutt-Benz, Glass, and Roper, *Middle Eastern Languages*, 70.
46. Giovanni Curatola, *Eredità dell'Islam* ([Venice], 1993), no. 298.
47. Muhsin Mahdi, 'From the Manuscript Age to the Age of Printed Books,' in *The Book in the Islamic World: The Written Word and Communication in the Middle East*, ed. George N. Atiyeh (Albany, NY, 1995), 1-16.
48. Reproduced in Mahdi, 'Manuscript to Printed Books,' fig. 1.1.
49. Bloom, *Paper before Print*, 218 and fig. 83.

50. Kreiser, *Beginnings of Printing*.
51. Atiyeh, *The Book in the Islamic World*, 284–5.
52. Translation in Atiyeh, *The Book in the Islamic World*, 286–92.
53. Huda Smitshuijzen AbiFares, 'Arabic Type: A Challenge for the 2nd Millennium,' *Baseline International Typographics Magazine* 26 (1998): fig. 2.
54. François Déroche, 'The Ottoman Roots of a Tunisian Calligrapher's *Tour de Force*,' in *Sanatta Etkileşim/Interaction in Art, Proceedings of a Symposium Held at Hacettepe Üniversitesi, Ankara, 25–27 November 1998* (Ankara, 2000), 106–7; Tim Stanley, 'Page-Setting in Late Ottoman Qur'āns. An Aspect of Standardization,' *Manuscripta Orientalia* 10 (2004): 56–63. This format was already in existence by 1700, though the fifteen lines became standard in the late eighteenth century, and a set of twenty-nine rules was even drawn up in the nineteenth century; see Jan Just Witkam, 'Twenty-Nine Rules for Qur'an Copying: A Set of Rules for the Layout of a Nineteenth-century Ottoman Qur'an Manuscript,' *Journal of Turkish Studies* 26, no. 2 (2002): 339–48.
55. For Hasan Riza (1849–1920), see Derman, *Letters in Gold*, 156. He grew up in Tirnovó (now Veliko Turnovo) in Bulgaria, where his father was postmaster, but then entered the palace service of Sultan 'Abd al-Hamid, joining the imperial brass band. He also studied calligraphy and became a teacher at the school of calligraphy (Madrasat al-khattatin), which had been opened in Istanbul on 6 Rajab 1332/31 May 1914. A master of *naskh* as well as the large versions of *naskh* and *thuluth*, Hasan Riza, like his contemporary Hafiz Osman Nuri Efendi (d. 1894) was one of the few Ottoman calligraphers who excelled in the art of making small Koran manuscripts in the *ayat bar kinar* format.
56. Jonathan D. Spence, *The Memory Palace of Matteo Ricci* (New York, 1984).
57. London, Khalili Collection, QUR33, Bayani, Contadini, and Stanley, *The Decorated Word*, no. 40.
58. The additional paragraph of description reads: He was the most generous-hearted of men, the most truthful of them in speech, the most mild-tempered of them, and the noblest of them in lineage. Whoever saw him unexpectedly was in awe of him. Whoever associated with him familiarly, loved him. Anyone describing him would say, I never saw the like of him, before him or after him. Peace be upon him.
59. See, for example, the magnificent one made in Sha'ban 1323/October 1905 (Sabanci Collection, no. 115; Derman, *Letters in Gold*, no. 56). Below the standard layout canonized by Hafiz Osman, Hasan Riza added a bottom line of large *thuluth* to balance the other two. It contains a *hadith qudsi*, a Tradition said to have been spoken by God in the Prophet's words, saying that if it were not for you [Muhammad], if it were not for you [Muhammad], then I [God] would not have created the heavens. The repetition of the first phrase allowed the calligrapher to repeat shapes and create internal rhythm within the line.

Although Hasan Riza's *hilya* follows the calligraphic tradition established by Hafiz Osman, the decoration is typical of the nineteenth and twentieth centuries. In addition to the ornate floral border, like the one added to the *hilya* penned by Hafiz Osman (Figure 11.4), Hasan Riza's *hilya* is notable for the stops between the sentences. Each one consists of a small lithographed print of a calligraphic composition containing the profession of faith surrounded by a sentence associated with Muhammad's role as the seal of prophets: O Muhammad, your name is victorious, so look wherever you will, you will be victorious and

- succed. Hasan Riza knew well the advantages of lithography: he produced the plates for a lithographed edition of the Koran published in 1884, which was widely distributed and repeatedly reprinted because of its clarity. Such *hilyas* continued to be made in the twentieth century; see the example by Hamid Aytac dated 1368/1949 (Derman, *Art of Calligraphy*, no. 189).
60. Tim Stanley, 'Shumen as a Centre of Qur'an Production in the 19th Century,' in *M. Uğur Derman 65 Yaş Armağanı*, ed. Irvin Cemil Schick (Istanbul, 2000), 483–512.
 61. London, Khalili Collection, QUR343; Rogers, *Empire of the Sultans*, no. 41.
 62. Gacek, 'Diploma.'
 63. It is preserved in the library of McGill University (AC 156).
 64. Déroche, 'Istanbul Seen from Cairo.'
 65. London, Khalili Collection CAL 258; Safwat, *Art of the Pen*, no. 23.
 66. For short biographies of him, see Atil, *Süleyman the Magnificent*, 46–62; Turner, *DoA*, 'Ahmad Karahisari;' Derman, *Letters in Gold*, 56; Derman, *Art of Calligraphy*, 216.
 67. Ahmad studied with the Persian master Asadallah Kirmani (d. 893/1488) and frequently acknowledged his debt to his teacher in his colophons by signing himself one of Asadallah's pupils (*talamidh*). Ahmad Karahisari seems to have been the first to have evolved such a colophon incorporating the names of both master and pupil. See Rado, *Türk Hattalari*, 72; Safwat, *Art of the Pen*, 40, n. 1. By the late sixteenth century the practice had become universal. Such a signature implied that the calligrapher had been awarded a license and was allowed to take on his own pupils. To include his master's name also signified a calligrapher's legacy, thereby enhancing his own reputation.
 68. Istanbul, TKS, H.S. 5; Filiz Çağman, 'The Ahmed Karahisari Qur'an in the Topkapi Palace Library in Istanbul,' in *Persian Painting from the Mongols to the Qajars, Studies in Honour of Basil W. Robinson*, ed. Robert Hillenbrand (London, 2000), 39–56. According to Mustaqimzade, Ahmad Karahisari was buried at Sütlüce, a suburb of Istanbul, near the grave of the Sufi shaykh Jamal Halif, a member of the Khalwatiyya, the popular dervish order to which Shaykh Hamdallah had also belonged.
 69. Istanbul, TKS, Y.Y. 999; Atil, *Süleyman the Magnificent*, no. 9a; Rogers and Ward, *Süleyman the Magnificent*, no. 15a. The upper and lower lines of the splendid opening double page are written in large gold *thuluth* outlined in black, while the main text in the manuscript, five smaller lines on each of these pages, is penned in a small black *naskh*. Gold cartouches inscribed in white *tawqi'* at the top and bottom give the name of the *suras* and the verse count. The text is surrounded by stunning illumination of arabesque scrolls, cloud bands, and naturalistic plants, designs that prefigure the work of the illuminator Kara Memi. Later connoisseurs appreciated the quality of the manuscript, for it was rebound in the seventeenth century in a resplendent cover of silver cloth decorated with gold plaques encrusted with rubies, turquoises, and pearls.
 70. Istanbul, TIEM 1443, fols. 1b-2a; Atil, *Süleyman the Magnificent*, no. 10; Rogers and Ward, *Süleyman the Magnificent*, no. 16; Curatola, *Eredità dell'Islam*, 14.
 71. See, for example, the frontispiece to an anthology made for Sultan Bayazid II c. 1500, reproduced in Petsopoulos, *Tulips, Arabesques and Turbans*, pl. 182.

72. See, for example, two folios in the Gawhar-Sultan album; London, Khalili Collection, ms. 725, fols. 12a and 1b; Safwat, *Art of the Pen*, no. 43.
73. Monumental examples are found on the piers on the Ulu Cami in Bursa at the end of the fourteenth century; Blair and Bloom, *The Art and Architecture of Islam, 1250–1800*, fig. 178. The most dramatic example of such an individual composition, with the name ‘Ali written in different colors dozens of times, is found in the so-called Baysunghur album (TKS H2152, fol. 9b; reproduced in color in Oleg Grabar, *The Mediation of Ornament*, A. W. Mellon Lectures in the Fine Arts, 1989 [Princeton, 1992], cover and pl. 3).
74. On the origin and development of interlacing, see Sheila S. Blair, *Islamic Inscriptions* (Edinburgh, 1998), 62–4.
75. See Chapter 10 and Figure 10.17.
76. Rogers and Ward, *Süleyman the Magnificent*, 71.
77. The inscriptions are discussed in Gülru Necipoğlu, ‘The Süleymaniye Complex in Istanbul: An Interpretation,’ *Muqarnas* 3 (1985): 92–117.
78. Although the inscriptions in the Sulaymaniye, particularly those in the main dome, have been repainted or restored, they seem to represent much of the original design, to judge from the comments by Mustafa Sa’i Chelebi (d. 1588), the poet and painter who composed a treatise in which he discussed the qualities of the buildings by his friend Sinan, and by Evliya Chelebi (1611–84), whose popular travelogue also describes the complex. According to Evliya Chelebi, each *alif*, *lam*, and *kaf* was made ten *arsuns* tall so that it could be read easily. See Necipoğlu, ‘Süleymaniye Complex.’
79. The technique of pouncing was known in China before the tenth century and then carried across Asia with the transmission of paper. It surfaced in Iran c. 1400, about the same time that it appeared in Europe. By the late fifteenth century, Ottoman potters at Iznik regularly used it to transfer designs to the ceramic surface. See Bloom, *Paper before Print*, 189–91. For a discussion of the technique in Ottoman calligraphy, see M. Uğur Derman, *Türk Hat Sanatının Şâheserleri* (n.p., 1982), 30–3; Safwat, *Art of the Pen*, 142–3.
80. J. M. Rogers, ‘The State and the Arts in Ottoman Turkey: The Stones of Süleymaniye,’ *International Journal of Middle East Studies* 14 (1982): 290.
81. On these, see again Safwat, *Art of the Pen*, 32–9; Derman, *Letters in Gold*, 29 and fig. 7; Derman, *Art of Calligraphy*, no. 91.
82. Rado, *Türk Hattalari*, 53.
83. For a discussion of the term and examples, see Safwat, *Art of the Pen*, 12–31; Derman, *Letters in Gold*, 29.
84. London, Khalili Collection, MSS 249, fol. 3b; Safwat, *Art of the Pen*, no. 3.
85. The gold script here is set off by the striking contrast with the bright-blue marbled paper used for the borders, but they are probably later.
86. See the discussion in Safwat, *Art of the Pen*, 128–41; Derman, *Letters in Gold*, 27–30; Derman, *Art of Calligraphy*, 44–5.
87. See various sample layouts illustrated in Derman, *Letters in Gold*, fig. 15.
88. Serin, *Şeyh Hamdullah*, nos. 152–78; Derman, *Art of Calligraphy*, nos. 45 and 48. By far the majority use the *thuluth-naskh* pair, but occasionally one (e.g., Serin, no. 159) is done in the *muhaqqaq-rayhan* pair.
89. See, for example, one by Ahmad Kamil at the turn of the nineteenth to twentieth century; Sabanci Collection 130; Derman, *Letters in Gold*, no. 57. The popularity of this format in the Ottoman lands seems to

have led calligraphers in Iran to transcribe similar Arabic texts in the same fashion.

90. Berlin, Museum für islamische Kunst 1.1985–11. Elke Niewöhner-Eberhard, 'Die berliner Murakka von Hafiz Osman,' *Jahrbuch der Berliner Museen* 31 [1989]: 41–59; Blair and Bloom, *The Art and Architecture of Islam, 1250–1800*, fig. 312). It contains ten pages bound in accordion format. Each page has a long line of large *muhaqqaq* above four shorter lines of smaller *naskh* flanked by floral panels. Another undated album (TKS E.H. 2215; Esin Atıl, *Turkish Art* [Washington, DC, 1980], fig. 116) opens with a similar line of large *muhaqqaq*, followed by three lines of smaller *naskh* and balanced by another line of large *thuluth*. Hafiz Osman often penned the basmala in *muhaqqaq* and juxtaposed it to other large lines of text in *thuluth*, as in another album dated 1080/1669 in the Sabanci Collection (Derman, *Letters in Gold*, no. 14). A good view of the accordion format is illustrated in Derman, *Letters in Gold*, fig. 16.
91. See Chapter 7 and note 32. Another is the elision of *alif* to 'ayn/*ghayn*, also used in this album.
92. The former is in the Khalili Collection, MSS28; Safwat, *Art of the Pen*, no. 56. The latter is in the collection of IRCICA in Istanbul; Derman, *Art of Calligraphy*, no. 145.
93. On the *levha*, see Derman, *Art of Calligraphy*, 45–6.
94. Günsel Renda, *A History of Turkish Painting* (Seattle and London, 1988), 51–4.
95. See, for example, the large (width 127 cm) pricked drawing made by Sam Efendi in 1318/1900 and the *levha* produced from it by the illuminator Baha al-Din Efendi, illustrated in Derman, *Letters in Gold*, fig. 17 and no. 51, or the even wider one (85 × 170 cm) illustrated in Derman, *Art of Calligraphy*, no. 149. Large *hilyas* could be mounted in the same way.
96. The difference in quality of illumination often distinguishes a good panel from a poor one made from the same stencil.
97. In an analogous way, medieval authors in the Islamic lands were able to disseminate their works faster than their contemporaries in the West by dictating their works orally rather than having them copied visually. The rate of production thus increased geometrically, rather than arithmetically. This procedure resulted in an explosion of books. See Bloom, *Paper before Print*, 116.
98. In addition to the short biographies of his life in Turner, *DoA*, 'Mustafa Raqim,' Derman, *Letters in Gold*, 98; Derman, *Art of Calligraphy*, 226, see Süleyman Berk, 'Hattat Mustafa Râkım'ın Celî Sülüs'ün Estetiğinde Ortaya Koyduğu Yenilikler,' in M. Uğur Derman 65 Yaş Armağanı, ed. Irvin Cemil Schick (Istanbul, 2000), 145–74.
99. For example, Mustafa Raqim designed the inscriptions for his brother's gravestone in Edirnekapi cemetery, as well as the bands of calligraphy inside the Nusratiya Mosque in the Tophane quarter of Istanbul.
100. Istanbul, TIEM, nos. 2509, 2510, 2644–6; Derman, *Art of Calligraphy*, 39 and n. 11. On the technique, see also Derman, *Art of Calligraphy*, 39–42.
101. Istanbul, Sabanci Collection, no. 73; Derman, *Letters in Gold*, no. 27. Another of the same design on blue pasteboard is illustrated in Derman, *Art of Calligraphy*, no. 93. It shows the differences in execution using the same stencil, as the spacing is more crowded. The dot of *nabi*, for example, crowds the *sad* in the blue pasteboard example.
102. An accomplished musician and Koran reciter, Mustafa studied calligraphy with Yasarizada Mustafa 'Izzet (see below, note 147) from

- whom he adopted the penname 'Izzet. He also served as chief judge (*qadi 'askar*) of Anatolia. Short biographies of his life (1801–76) are readily available in Turner, *DoA*, 'Mustafa Izzet;' Derman, *Letters in Gold*, 116; Derman, *Art of Calligraphy*, 232–3. See also Talip Mert, 'Kadiasker Mustafa Izzet Efendi,' in M. Uğur Derman *65 Yaş Armağanı*, ed. Irvin Cemil Schick (Istanbul, 2000), 399–416.
103. London, Khalili Collection, CAL204–209 and MXD 265A–B; Safwat, *Art of the Pen*, nos. 82–9; Rogers, *Empire of the Sultans*, no. 2. The cardboard ones are smaller (35 cm in diameter) as opposed to the 60-cm diameter of the wooden ones.
104. Safwat, *Art of the Pen*, no. 85.
105. M. A. Karīmzāda Tabrizī, *Aḥwāl wa āthār-i naqqāshān-i qadīm-i irān* [*The Lives and Art of Old Painters of Iran*] (London, 1985), 3:1095–6, and Safwat, *Art of the Pen*, 204–11, give thorough descriptions of this painstaking technique based on the advice of modern practitioners.
106. *El*/2, 'Tutun.'
107. One of the earliest examples (Karīmzāda Tabrizī, *Aḥwāl wa āthār-i naqqāshan*, 3:1513) is attributed to the hand of the Ottoman gilder Muhammad Nuri Bursavi, who was active c. 1890. Another example in Istanbul University Library (A.Y. 6531) is signed Qadiri and dated 1314/1896–7.
108. London, Khalili Collection, CAL141 and CAL 163; Safwat, *Art of the Pen*, nos. 146 and 152.
109. London, Khalili Collection, CAL152; Safwat, *Art of the Pen*, no. 153. The Qadiriyya were noted for their pilgrimage rituals and the objects used on them. See, for example, the striking maroon shield-shaped banner (known in Turkish as *sanjak*) made in Ottoman North Africa in 1094/1684 (Harvard University Art Museums 1958.20; Sheila S. Blair and Jonathan M. Bloom [eds], *Images of Paradise in Islamic Art* [Hanover, NH, 1991], no. 8a).
110. London, Khalili Collection, CAL165; Safwat, *Art of the Pen*, no. 144; Rogers, *Empire of the Sultans*, no. 217.
111. Rado, *Türk Hattalari*, 239.
112. London, Khalili Collection, CAL 143, 145–8, 153 and 399; Safwat, *Art of the Pen*, no. 149; Rogers, *Empire of the Sultans*, nos. 200–6.
113. This preference is clear as none of these zoomorphic compositions are included in Derman's magisterial volume on Islamic calligraphy, *Art of Calligraphy*.
114. Frederick De Jong, 'The Iconography of Bektashiism: A Survey of Themes and Symbolism in Clerical Costume, Liturgical Objects and Pictorial Art,' *Manuscripts of the Middle East* 4 (1989): 7–29; Frederick De Jong, 'Pictorial Art of the Bektashi Order,' in *The Dervish Lodge: Architecture, Art and Sufism in Ottoman Turkey*, ed. Raymond Lifchez (Berkeley, 1992), 228–41; Irène Mélikoff, 'Images et symboles chez les Qezelbaş,' in *Images et représentations en terre d'Islam*, ed. Hossein Beikbaghban (Tehran, 1997), 40–65. Supposedly founded by Bektash-i Vali (1258–1337), the order seems to have shifted, somewhat like the Safavids, from Sunnism to Shi'ism.
115. As with a calligraphic lion penned by Ahmad Hilmi in 12 Jumada I 1331/19 April 1913; London, Khalili Collection, CAL242; Rogers, *Empire of the Sultans*, no. 207.
116. De Jong, 'Iconography of Bektashiism' located a group in the Bektashi lodge in Diakova, Yugoslavia; M. Aksel, *Türklerde Dini Resimler, Yazı-Resim* (Istanbul, 1967) documented others.

117. Munich, Staatliches Museum für Völkerkunde, cat. no. 31-7-2; Schimmel, *Islamic Calligraphy*, pl. 47a; Annemarie Schimmel, 'Calligraphy and Sufism in Ottoman Turkey,' in *The Dervish Lodge: Architecture, Art and Sufism in Ottoman Turkey*, ed. Raymond Lifchez (Berkeley, 1992), 242-52.
118. Istanbul, TKS, G.Y. 325/66; *The Anatolian Civilisations III Seljuk/Ottoman*, E.311.
119. Schimmel, *Islamic Calligraphy*, pl. 44B.
120. Annemarie Schimmel, *Mystical Dimensions of Islam* (Chapel Hill, 1975), 425.
121. On Isma'il Zuhdi, see Derman, *Letters in Gold*, 96; Derman, *Art of Calligraphy*, 226.
122. Sufis also attached great symbolism to numbers (Annemarie Schimmel, *The Mystery of Numbers* [New York and Oxford, 1993] and letters (Schimmel, *Mystical Dimensions*, Appendix 1). This trend was already developed in the sect known as the Hurufis, founded by Fadlallah Astarabadi, who was executed for his heretical ideas in 1398. For Hurufis, the word – the supreme manifestation of God – is revealed in the human face, which becomes the Koran. According to Fadlallah, Adam had been given nine letters, Abraham fourteen, Muhammad twenty-eight, and he himself thirty-two, corresponding to the Persian version of the Arabic alphabet. Such Sufi-inspired pictures became extremely popular in later times.
123. See, for example, Blair and Bloom, *Images of Paradise in Islamic Art*, nos. 9 and 10; Tim Stanley, Miriam Rosser-Owen, and Stephen Vernoit, *Palace and Mosque: Islamic Art from the Middle East* (London, 2004), no. 1. For nineteenth-century *hilyas*, see above, note 59.
124. Rado, *Türk Hattalari*, 199.
125. Schimmel, *Islamic Calligraphy*, II. Forms of the Basmala, IIIe.
126. The decree, issued a week after the death of Mehmed the Conqueror, is in the archives of the Topkapı Palace; Ayegül Nadir (ed.), *Osmanlı Padişah Fermanları/Imperial Ottoman Fermans* (Istanbul, 1986), no. 7. It is said to be the earliest preserved land grant in *divani* script. For another example of unpointed *divani*, see the land grant (*berat*) defining the boundaries in the district of Timurhisar in Macedonia issued under Bayazid II in 914/1508; Sabanci Collection, no. 35; Derman, *Letters in Gold*, no. 35.
127. The Ottoman prince Sulayman Chelebi, ruler in Rumeli from 1403 to 1413, already had his *tughra* engraved on his coins; see *EI*/2, 'Tughra', fig. 3.
128. 'Notes sur la tughra ottomane,' *Byzantion* 18 (1948): 311-34. More recent work on the *tughra* includes Nadir, *Ottoman Fermans*; Atıl, *Süleyman the Magnificent*, 36-43; Rogers and Ward, *Süleyman the Magnificent*, 56-9; Derman, *Letters in Gold*, 37-39. Nadir's volume is particularly useful in illustrating a series of dated documents from the Turkish archives. I thank Tim Stanley for making his copy available to me.
129. Although some of the Turkish words can be found in contemporary sources, they are not really technical terms, and the English equivalents are preferable as they are more graphic; see Rogers and Ward, *Süleyman the Magnificent*, 58.
130. The endpapers in the volume on the decorative arts from the Ottoman Empire by Petsopoulos, *Tulips, Arabesques and Turbans*, contain a convenient drawing of the thirty-four *tughras* used chronologically by the Ottoman sultans.

131. See, for example, the land grant issued by Bayazid II on 1 Safar 890/17 February 1485; TKS Archives E.5527/2; Nadir, *Ottoman Fermans*, no. 8.
132. It was used by Turkish rulers from the time of the chiefs of the Ughuz and the Saljuqs; see *EI*/2, 'Tughra'.
133. It can be seen on an endowment deed issued in mid-Rabi' I 724/8–17 March 1324 and now preserved in Istanbul Municipal Library (no. 10); it is illustrated in Nadir, *Ottoman Fermans*, no. 1. The bowls of the *nuns* ending the three words in the monograph, Orhan ibn 'Uthman, are stacked like the planks of a boat, a shape that reappears in later zoomorphic images representing the boat of salvation. At the side are the signatures of three of Orhan's sons, also written like *tughras* with stacked letters.
134. Istanbul, TKS, E7816/2; Atil, *Süleyman the Magnificent*, no. 3; Rogers and Ward, *Süleyman the Magnificent*, no. 10.
135. New York, Metropolitan Museum of Art; Atil, *Süleyman the Magnificent*, no. 4.
136. Istanbul, TIEM, 2238; Atil, *Süleyman the Magnificent*, no. 2; Rogers and Ward, *Süleyman the Magnificent*, no. 9.
137. See the sample given by Derman, *Letters in Gold*, fig. 20.
138. See, for example, the one in the Khalili Collection (CAL251; Safwat, *Art of the Pen*, no. 90). This example, which measures nearly half a meter wide, has been drawn on cream-colored paper card, pasted on thin card, and mounted in a silver frame. The gold letters are outlined in black ink, with details added in black to show where some strokes impale others, like swords.
139. Istanbul, Sabanci Collection, no. 14; Derman, *Letters in Gold*, no. 70.
140. Derman attributed the work to Nasih on stylistic grounds.
141. In 1970 Rikkat Kunt, a modern master who attempted to revive the classical style of illumination, added the gold wreath that encloses the *tughra* and extends around the *invocatio* at the top of the document. She worked in the style of gold decoration known as *halkari* (dissolved gold) in which motifs are painted in a wash of gold ink and then outlined in full-strength gold ink. Although color is provided only by the background paper, the technique gives a subtle shaded effect. She often used this style for chain borders and floral decoration, which she added in the margin around earlier pieces. This is the case with a pasteboard panel containing a poem in *thuluth* calligraphed by Mahmud Jalal al-Din at the turn of the eighteenth to nineteenth century and restored by Rikkat Kunt in the 1970s (Sabanci Collection, no. 74; Derman, *Letters in Gold*, no. 32).
142. IUL, T.5467; Atil, *Süleyman the Magnificent*, no. 26; Rogers and Ward, *Süleyman the Magnificent*, no. 31.
143. Mīr Munshī Qummī Qādī Aḥmad, *Gulistān-i Hunar*, ed. Aḥmad Suhaylī-Khānsārī (Tehran: Raz, 1352/1974), 121; Qādī Aḥmad, *Calligraphers and Painters: A Treatise by Qādī Aḥmad, Son of Mīr-Munshī* (Circa AH 1015/AD 1606), trans. V. Minorsky, Occasional Papers (Washington, DC, 1959), 167.
144. For details on these albums, see Chapter 7.
145. IUL, 1426; Atil, *Süleyman the Magnificent*, no. 49; Rogers and Ward, *Süleyman the Magnificent*, no. 53. The frontispiece is illustrated as nos. 49b and 53b.
146. Istanbul, TKS E.61; Atil, *Süleyman the Magnificent*, no. 18; Rogers and Ward, *Süleyman the Magnificent*, no. 24.
147. Brief biographies in Annemarie Schimmel, *Calligraphy and Islamic Culture* (New York, 1984), 53; Turner, *DoA*, 'Esad Yasari,' Derman,

Letters in Gold, 100; Derman, *Art of Calligraphy*, 229. The full-length study by Süheyl Ünver, *Mehmed Esad Yesari: Hayatı Ve Eserleri* (Istanbul, 1955) was not available to me.

Yasari served as master calligrapher in the Imperial Palace under Mustafa III (r. 1757–73), and is said to have been carried from room to room in the palace in a special basket. Despite his infirmity, he reportedly had so many students that the stationer Qadri Usta was able to earn a living selling polished paper outside the master's front door. Until his death in 1798, Yasari remained in Istanbul, except when he was taken on the pilgrimage to Mecca in 1206/1791–2 by his son, also a calligrapher, Mustafa 'Izzet, known as Yasarizada (d. 1265/1849).

148. Inscriptions in his hand are found in the barracks of the Black Eunuchs within the Haram at the Tokapi Palace and elsewhere in Istanbul.
149. Istanbul, TKS, GY-324/27–3; Derman, *Art of Calligraphy*, no. 102. His master Sayyid Muhammad Dedeizada signed the bottom corner in smaller script giving his pupil Muhammad Yasari permission to sign his works.
150. A master calligrapher like M. Uğur Derman (*Art of Calligraphy*, 42–3) can spot these differences immediately. For less practiced eyes, one quick and practical way to quantify the differences is to print out the quatrains at the same size and hold them up to the light one behind the other. The tiny differences in letter shapes are thus visible.
151. Brief biography in Derman, *Art of Calligraphy*, 230–1. He is said to have mastered the principles of perspective, designing inscriptions so that they could be seen from afar in proper perspective.
152. Istanbul, Sabanci Collection, no. 226; Derman, *Letters in Gold*, no. 55. The calligrapher worked in the palace and was also known for his ability to stretch short place names to fill large spaces on lithographed maps. On him, see also Derman, *Art of Calligraphy*, 243.
153. See, for example, the album pages penned by Yasari in the late eighteenth century and Muhammad Hulusi Yazgan in 1322/1904 (Sabanci Collection, nos. 347 and 322; Derman, *Letters in Gold*, nos. 28 and 53).
154. Derman, *Letters in Gold*, 16–17, figs. 11–12, makes the interesting comparison of the same composition penned in *large thuluth* and *nasta'liq/ta'liq*.
155. London, Khalili Collection, CAL158; Safwat, *Art of the Pen*, no. 147; Rogers, *Empire of the Sultans*, no. 218.

Other Styles and Centers

IN 1492 MUSLIMS WERE FORCED from the Iberian peninsula, but by that time they had carried Islam in other directions far beyond the traditional boundaries established in the eighth century. In India, Muslims ruled not only in the north, where the major power was the long line of Mughal emperors (1526–1858), but also in the Deccan, where several regional dynasties of shahs and sultans held sway. Muslim seafarers took advantage of the monsoon winds to ferry Islam across the Indian Ocean to south-east Asia and east Africa, and caravans also carried Islam overland from the Mediterranean coast of Africa southward across the Sahara to central Africa. Different styles of artistic production emerged in these newly Islamicized areas, and the calligraphic scripts that developed there confirm the traders' origins, as those used in the Indian Ocean and sub-Saharan Africa are ultimately derived from India and North Africa, respectively. Surviving examples and documentation make it possible to write a history of Islamic calligraphy in India and the Maghrib during this age of empires (1500–1900), but this is impossible for the other two areas, where isolated examples poke up like atolls in a vast sea.

The Mughals and their contemporaries in India

The Mughals were great bibliophiles. The founder of the dynasty, Babur (r. 1526–30), was a man of letters who transported his private library with him when traveling and wrote his autobiography in Chaghatay Turkish.¹ Already by the reign of his grandson Akbar (1556–1605), the Mughal emperors had amassed a substantial library that comprised 24,000 books and was valued at 6,463,731 rupees.² The fact that the manuscripts were counted and appraised so carefully shows the Mughals saw books as commodities. Yet, one should not overestimate the value of this collection to these potentates. The entire library was equivalent to the price of thirty of their finest rubies or sixty bejeweled daggers or prize elephants. The Mughals were, quite simply, super rich.

According to Akbar's court chronicler Abu'l-Fadl 'Allami, the Mughal library included prose and poetic works in Hindi, Persian, Greek, Kashmiri, and Arabic, each housed in a separate section.³ The

books covered a wide range of subjects ranging from philosophy, history, and science to literature, with many translations into Persian as well as other new works commissioned by the emperor. Seal impressions, notes, and glosses prove that these manuscripts were perused and appraised, if not as regularly as sometimes assumed.⁴ Those that survive show that the books produced for the Mughals, like the ones made for their Timurid and Safavid predecessors, were some of the finest ever made, with paper, writing, illustrations, illuminations, and binding carefully planned to create a harmonious whole.⁵

Despite the unity of concept in the production of these *de luxe* codices, modern writers on the subject have preferred the paintings to the calligraphy. There are dozens of books on Mughal miniatures, but scarcely a handful of articles devoted to Mughal calligraphy.⁶ Catalogue entries on many of the major illustrated manuscripts describe the work of various painters, but sometimes ignore the colophon, let alone the calligrapher. The lack of critical studies means, moreover, that it is difficult to distinguish Indian calligraphy from its Persian brethren, a problem exacerbated by the movement of artists between and within the two areas.⁷

Such an emphasis on painting is directly contradicted by Abu'l-Fadl, whose third volume comprises the administrative reports and statistics of the Mughal government c. 1590. His first section covers ninety aspects (*a'in*) of the royal household and court, naturally placing the emperor in the spotlight of every department ranging from the mint, the harem, the camp, seals, the kitchen, and the wardrobe to the arsenal and the stables. Aspect 34 concerns the arts of writing and painting.⁸ Although scholars have long noted his discussion of painting, it is the second and least important part of the entry, less than one-third the length of the chronicler's long exposition on writing. Abu'l-Fadl begins by distinguishing form from meaning, stating that:

But though it is true that painters, especially those of Europe, succeed in drawing figures expressive of the conceptions which the art has of any of the mental states, so much so, that people may mistake a picture for a reality; yet pictures are much inferior to the written letter, inasmuch as the letter may embody the wisdom of bygone ages, and become a means to intellectual progress.

Abu'l-Fadl therefore turns first to writing, which he reiterates is the more important of the two arts. For him, a letter is the source from which light emanates, the world-reflecting cup, referring to Jamshid's fabulous goblet that revealed the secrets of the seven heavens. The letter, a magical power, is spiritual geometry emanating from the pen of invention. It represents articulate sound.

Abu'l-Fadl then addresses the alphabetic representations of sounds. He notes that Arabic uses eighteen signs (what modern grammarians call graphemes) to represent twenty-eight sounds. According

to Abu'l-Fadl, these letters assume various shapes in different scripts depending on the proportion of straight and round strokes. Among old scripts such as Coptic and Abyssinian, Abu'l-Fadl mentions *ma'qili*, which is entirely composed of straight strokes, and kufic, which is five-sixths straight and one-sixth curved. Abu'l-Fadl next turns to the eight calligraphic styles used in the three empires. First are the Six Pens, which he sees as three pairs of majuscule (*jali*) and minuscule (*khafi*) scripts: *muhaqqaq/rayhan*, which have three-quarter straight strokes and one-quarter curved; *thuluth/naskh*, which have two-thirds straight and one-third curved; and *tawqi'/riqa'*, the most curvilinear, with one-quarter straight strokes and three-quarters curved. Abu'l-Fadl then moves to the hanging scripts. *Ta'liq*, he notes, is a derivative of *tawqi'/riqa'*, with very few straight lines. He reserves his final and longest description for the entirely round *nasta'liq*, presumably because it was the most common script in India, as in contemporary Iran. In his entry on writing, Abu'l-Fadl thus drew upon the traditional Persian historiography of calligraphy, but organized the scripts hierarchically according to the percentage of straight and round lines, describing them in descending order from the entirely straight *ma'qili* to the entirely curved *nasta'liq*.

In addition to describing the various scripts, Abu'l-Fadl also traces the chains of calligraphers. In general, these too follow the standard Iranian model. The Six Pens, for example, descend from Ibn Muqla, Ibn al-Bawwab, and Yaqut; *ta'liq* from Taj al-din Salmani; and *nasta'liq* from Mir 'Ali Tabrizi. As part of his standard rhetoric in praise of his patron, Abu'l-Fadl mentions that Akbar was interested in different styles of writing and encouraged many skilled calligraphers. Of all the scripts, Abu'l-Fadl singles out *nasta'liq*, which according to the court chronicler, received a new impetus during Akbar's reign. As evidence, the chronicler includes a paragraph listing the names of eleven contemporary practitioners.

Abu'l-Fadl thus expounds a well-articulated but traditional overview of calligraphy that shows its importance in the eyes of the early Mughal court. Other documentation supports this view and reveals that the Mughals were keen critics of writing and the book arts. Not only librarians, but even the emperors themselves appraised fine manuscripts according to a five-class system.⁹ In 1616, for example, Jahangir added a note on the dedicatory frontispiece in a now-lost copy of Anvari's *Divan* saying that the writing (*khatt*) was first class (*awwal*) as were three paintings, with the rest second or third class by the Safavid painter Riza 'Abbasi. Altogether, he valued the whole manuscript at ten thousand rupees.¹⁰ Reviewing these appraisals inscribed on the manuscripts, John Seyller delineated three factors that determined a high valuation.¹¹ One consideration was subject matter, with literary classics more highly prized than historical, linguistic, and religious texts. Manuscripts with illuminations and illustrations also commanded higher appraisals. But the third and most important factor

was the status of the calligrapher, with by far the highest appraisals for manuscripts penned by the Persian masters Sultan 'Ali Mashhadi (Figure 7.17) and Mir 'Ali Haravi (Figures 2.3 and 10.6). Works by Mughal calligraphers themselves were considered less valuable.

Calligraphers, like painters, were employees in the vast Mughal bureaucracy. Painters received twenty rupees per month;¹² calligraphers probably got more. Both calligraphers and painters, like scribes and illuminators in medieval Europe, were paid at a piecework rate, as shown by the breakdown in expenses on several Mughal manuscripts.¹³ According to a note on a provincial copy of Nizami's *Khamsa* dated 1036–7/1626–8, for example, of the total cost of 357 rupees, the calligrapher received about half (180 rupees) for copying 36,000 couplets at five rupees per thousand couplets, whereas the fourteen rather simple paintings cost a mere three rupees apiece.¹⁴

The piecework payment is confirmed by one of the finest manuscripts made for the emperor – a *de luxe* copy of Nizami's *Khamsa* completed on 24 Azar of his fortieth regnal year/14 December 1595 (Figure 12.1).¹⁵ The calligrapher 'Abd al-Rahim, known as 'Anbarin Qalam (Amber Pen), copied the text in four columns on sheets of light-brown polished paper, using a fine, balanced *nasta'liq* of the type perfected in late Timurid times under Sultan 'Ali Mashhadi (Figure 7.17), whose manuscripts are known to have been in the Mughal library. Marks in the text show that 'Abd al-Rahim penned a set thirty-three couplets (or sixteen and a half lines of text) – less than a single page – per day, taking three years to complete the 370-folio manuscript.¹⁶ 'Abd al-Rahim therefore worked at about the same speed as Shah Mahmud Nishapuri, who had taken six months more to pen his slightly longer (396-folio) copy of the same text.¹⁷ The meticulous counting of the unusual number of thirty-three verses in the Mughal copy, which required 'Abd al-Rahim to stop mid-line, proves that he was paid per couplet and shows that he did not want to write even one extra per day.

Court calligraphers could also supplement their salaries with prizes for a particularly fine work. According to another note that Jahangir added to an unillustrated copy of Sa'di's *Gulistan* dated 992/1584 when the manuscript entered the royal library on 9 Jumada II 993/8 June 1585, Akbar had rewarded the calligrapher, the renowned Muhammad Husayn al-Kashmiri, the sum of one thousand gold mohurs.¹⁸ While generous, this bonus was by no means extraordinary: in 1615, the poet Hakim Masih al-Zaman received the same sum for composing a short poem, and in the 1560s the musician Tansin had received twenty times as much (200,000 rupees) for his first performance at court. Princes got far bigger allowances: in 1609 Prince Parviz received fifty times that amount (500,000 rupees) for personal expenses, an amount matched again a few months later.¹⁹ And according to his court historian 'Abd al-Hamid Lahawri, Shah Jahan spent five million rupees, or five hundred times as much, on the Taj Mahal.²⁰

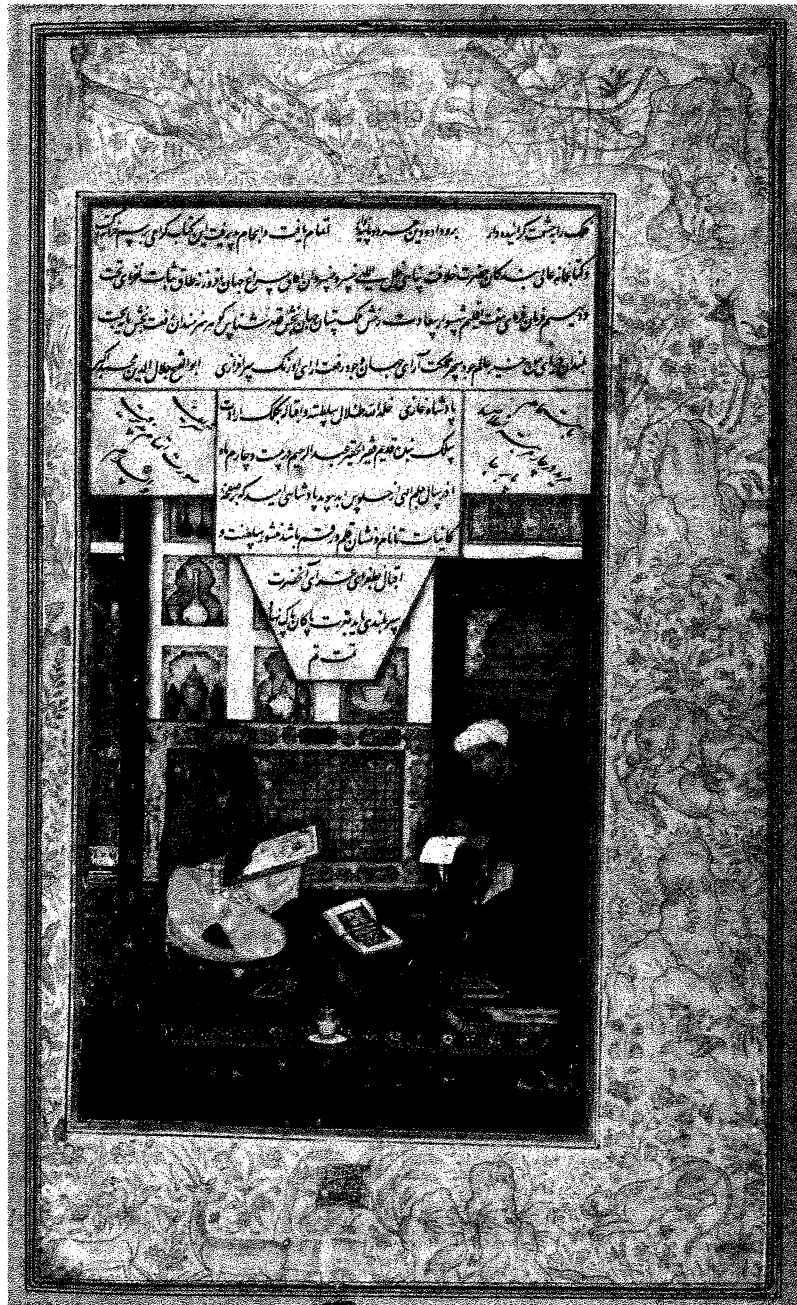


Figure 12.1 Page with the final colophon from a copy of Nizami's *Khamsa* with twenty-one lines per page copied by 'Abd al-Rahim on the 24 Azar of the fortieth year of Akbar's reign/14 December 1595.

This manuscript exemplifies the finest production of the imperial studio under the emperor Akbar. The court calligrapher 'Abd al-Rahim, commonly known by his title 'Anbarin Qalam (Amber Pen), transcribed the text in exquisite *nasta'liq*. Fifteen years later, Jahangir had the artist Dawlat add a painting showing the royal studio, including a self-portrait of the artist and a depiction of the scribe, with the accouterments of their professions.

Despite the importance of writing, pictures became increasingly important to the later Mughals. Abu'l-Fadl's insistence on the importance of writing over painting is already somewhat defensive and suggests that at least some people at court were already smitten by the impact of figural imagery.²¹ As in Safavid Iran, the role of pictures increased over time. Under Akbar's son and successor Jahangir, paintings were sometimes added to earlier manuscripts, such as the *de luxe* copy of Nizami's *Khamsa* made for Akbar, which has fine illumination and illustration alongside 'Abd al-Rahim's exquisite calligraphy. The written areas are set in margins painted in various tones of gold, with modeling and shading used to depict lively animals and birds in landscapes. The illuminations, notably the headpieces and medallions, are brilliant and varied, and the forty-two paintings in the manuscript are attributed to master artists in the imperial studio. Most are contemporary with the calligraphy, but the last one on the final page with the colophon (Figure 12.1) was added at Jahangir's insistence on 14 Shawwal 101[8]/10 January 1610, fifteen years after the manuscript had been completed.²² The painting shows the calligrapher 'Abd al-Rahim and the painter Dawlat at work in the imperial studio. In front of them are the tools of their trade, including a pen box, pens, and a roll of gold-sprinkled paper. Although interesting for the history of calligraphy and its tools, the painting was a topos, for a similar one around the colophon to a copy of Sa'di's *Gulistan* transcribed at Fatehpur Sikri in 990/1582–3 depicts the calligrapher Muhammad Husayn seated beside the painter Manohar.²³ There, the calligrapher's larger size, position at the left under the fly-whisk, and steadfast gaze over the youthful painter, who hunches over a piece of paper inscribed with his name, suggest the importance of writing over painting. In this image done almost two decades later, however, the artist Dawlat, now a larger figure shown gazing outward, is equal to, if not more important than, the introspective calligrapher 'Abd al-Rahim.

As the painting added to Akbar's *Khamsa* suggests, under the ruler's successors, paintings became bigger, often full-size and sometimes designed independently for albums.²⁴ Some of the most sumptuous ever made, these albums typically comprise a double page of calligraphy followed by a double page of painting, with each double page framed by decorated borders. Borders with figural scenes surround calligraphic pages (Figure 2.3); geometric and floral borders surround figural scenes. The arrangement suggests parity between calligraphy and painting, yet most of the calligraphic specimens in these albums were not penned by Mughal artists, but heirlooms by earlier Persian masters such as Mir 'Ali Haravi (Figure 10.6) and Mir 'Imad (Figure 10.9). The paintings, by contrast, depict the Mughal court as seen by Mughal artists. Jahangir, in particular, was well disposed toward painting. In assessing manuscripts, he showed a pronounced preferences for the work of his own artists.²⁵

The large size and increasing prominence of paintings forced Mughal calligraphers to go to lengths to coordinate text and illustrations in *de*

luxe books. At first, calligraphers used traditional techniques. In the copy of Amir Khusraw's *Khamasa* completed at Lahore in the forty-second year of Akbar's reign (March 1597–March 1598), for example, the calligrapher Muhammad Husayn al-Kashmiri repeatedly manipulated the spacing by writing several lines of text obliquely before an illustration, in the manner already adopted by Shirazi scribes in the early fifteenth century (Figure 7.10) and used regularly by their successors (Figure 7.17).²⁶

More extreme methods were needed to incorporate the high number of full-page paintings in manuscripts made for the later Mughals. In the very large (59 × 37 cm) copy of the *Padshahnama*, 'Abd al-Hamid Lahawri's history of Shah Jahan, finished in 1067/1657–8, for example, the calligrapher Muhammad Amin al-Mashhadi copied the text on 239 folios of gold-flecked paper with twenty-one lines of fine *nasta'liq* script per page, leaving space for forty-four full-page paintings that were later pasted into the text to illustrate the narrative.²⁷ In some cases, the text was too brief, and in order to make the appropriate lines fall just before an illustration, the calligrapher had to pen far fewer lines per page. On folio 96b, for example, he reduced the text to eleven lines to stretch out the text before the full-page illustration on folio 98b showing Shah Jahan receiving the Persian ambassador.²⁸ On folio 49b, the calligrapher was even more pressed and had to reduce the text to a scant three lines penned across the top, middle, and bottom of the page in order to fill up the single folio between two of the most important double-page spreads in the manuscript: Jahangir receiving Prince Khurram on his return from the Deccan (folios 48b–9a) and Shah Jahan receiving his three eldest sons and Asaf Khan (folios 50b–1a).²⁹ The result of such textual manipulation is visually awkward, sometimes leading to a high density of paintings but a thinness of text. Continuity of text and consistency of design have become subservient to the program of illustration.

It is possible to suggest several reasons why the Mughals came to value painting as much as calligraphy. Indian culture is primarily oral. There is no strong tradition of Hindu calligraphy,³⁰ but there was, by contrast, a long tradition of figural art, including painting and book illustration. Interest in figural representation only increased in Mughal times, due on the one hand to input from Safavid Iran and on the other to the introduction of European prints and drawings. Religion too may have played a role. Although Islam was the official creed under the Mughals, Muslims were never a majority in India, and some rulers, like Akbar, held idiosyncratic views. Therefore, commissioning fine copies of the Koran, the most important book in many Islamic lands, was less common under the Mughals, at least in the first centuries of their rule.

Despite competition from painting, calligraphy continued to play a significant role in India during this age of empires. Much of it was modeled on Iranian traditions, as the Persianate traditions of

calligraphy – the Six Pens and the hanging scripts, notably *nasta'liq* – also prevailed in the subcontinent, and hence the following discussion, like that of the Safavids, is subsumed under those rubrics, followed by a brief discussion of other decorative scripts.

Like their counterparts to the west, the Mughals and their contemporaries in India transcribed some manuscripts and calligraphic specimens using the Six Pens, typically juxtaposing scripts of varying size on the same page. The distinctive script known as *bihari* (Figure 9.8) continued to be used occasionally for provincial copies of the Koran, such as a small manuscript dated 1034/1624–5.³¹ It is the exception rather than the rule. Copying the Koran was apparently a low priority for the first Mughal emperors, and only a few examples can be associated with royal patronage during the sixteenth and early seventeenth centuries. One (Figure 12.2) is a large single-volume manuscript, with a note in Persian at the end saying that it was copied by Hibatallah al-Husayni at Lahore in 981/1573–4 for the use of the sultan, thereby referring to Akbar. Although some have doubted the authenticity of this note,³² the large size of the manuscript, the fine quality of the materials, and the rich illumination support its royal Mughal pedigree.³³

The Koran manuscript made for Akbar is modeled on the type of manuscript that had become popular in Iran in the preceding century, in which scribes reveled in displaying their talents by contrasting various scripts in different sizes on the same page, typically with three large lines sandwiching blocks with smaller script (Figure 10.1). In the manuscript made for Akbar, each page of polished paper has seventeen lines of text set in cloud bands. The first, middle, and last lines are in *muhaqqaq*, penned alternately in blue and gold on a white ground. The panels in between contain shorter lines of black *naskh* set between upright illuminated strips. In addition to the two text scripts, Hibatallah used *riqa'* as display script, as in the chapter headings written in black on a gold ground.

Hibatallah's text and display scripts are very similar to those canonized in Iran. As in its predecessors, the basmala (Figure 12.2a) is particularly stylized, with short tails on the *mims* in *bism* and *al-rahim*, a large bowl on the *nun* of *al-rahman*, and the connector between *sin* and *mim* extended so that it fills more than half the length of the line. The forms mirror those used in the Koran manuscript Ruzbihan had penned in Shiraz in the early sixteenth century, but the Mughal calligrapher's hand is not as steady: note for example, the slack swing of his connector as compared to the taut stroke penned by Ruzbihan.³⁴ Similarly, Hibatallah's verticals are not as straight, but quiver and are pitched to both right and left, as in the middle line on the right page.

The illumination in Akbar's Koran manuscript is again similar to Persian work, but shows a predilection for pink, orange, and green that distinguishes the manuscript as a product of India. Several double pages at the beginning and end of Akbar's manuscript have



Figure 12.2a

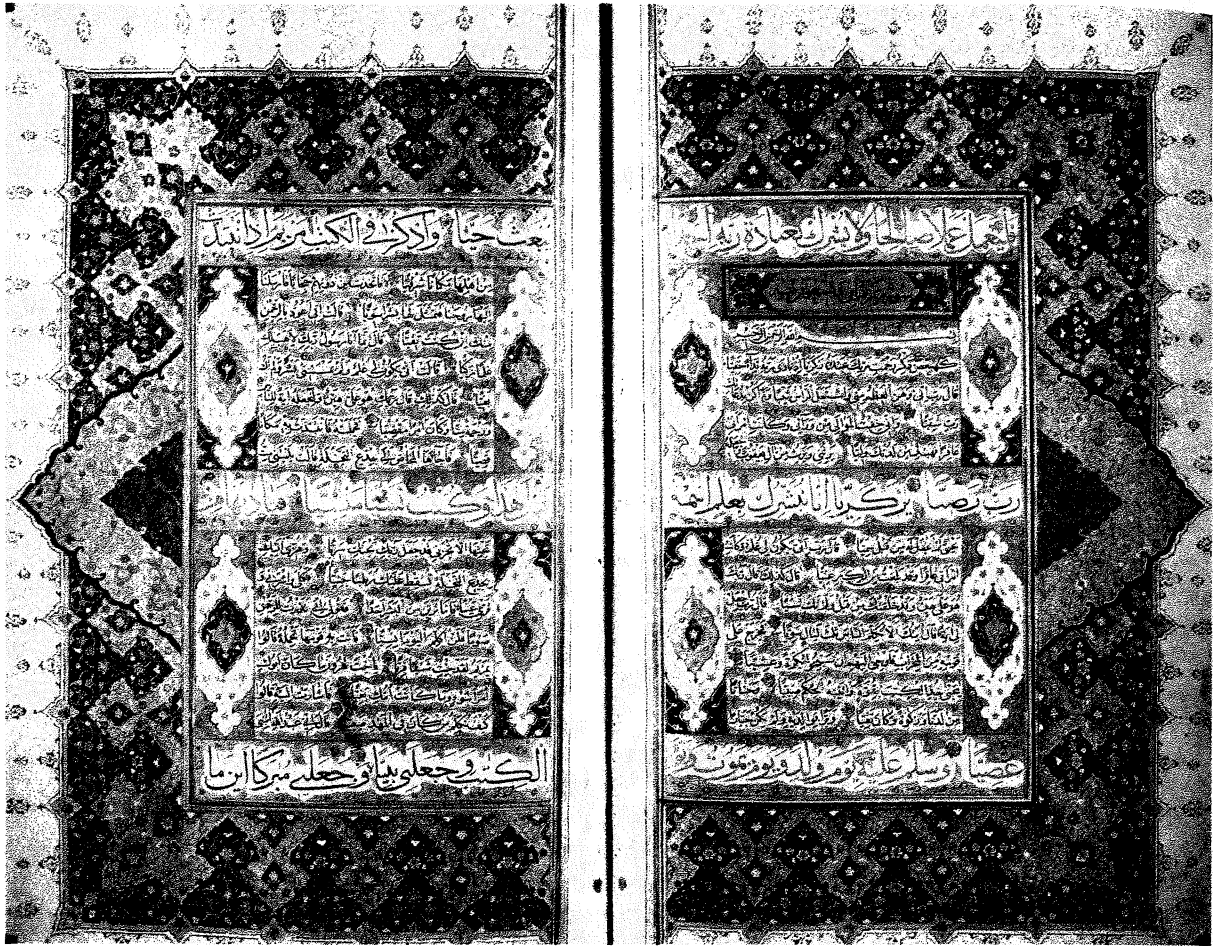


Figure 12.2 Double page with Suras 28:110–29:31 from a single-volume Koran manuscript with seventeen lines to the page transcribed in 981/1573–4 by Hibatallah al-Husayni at Lahore for the emperor Akbar. This is one of the few Koran manuscripts that can be associated with Mughal patronage in the early period. A note on the final folios says that it was made at Lahore in 981/1573–4 for the use of the sultan, presumably referring to Akbar. The manuscript continues the format and styles perfected in Iran a century earlier, with three lines of large *muhaqqaq* sandwiching two blocks, each with seven lines of smaller *naskh*.

margins decorated with peony arabesques in gold. In addition, this elaborate double page (Figure 12.2) marks the middle of the manuscript, just before the beginning of Chapter 19 (Surat Maryam). Illuminated middle pages were standard in India, used already in Koran manuscripts in *bihari* script (Figure 9.8).³⁵

Calligraphers elsewhere in India used the same juxtaposition of different scripts in different sizes for calligraphic specimens. Good examples are found in an album prepared in Golconda for the poet-ruler Muhammad Quli (r. 1580–1612), fifth in the line of Qutbshahi rulers of the east and central Deccan.³⁶ Immensely wealthy like

Akbar, his contemporary and more famous neighbor to the north, Muhammad Quli also established a new capital (his was at Hyderabad), which he embellished with many fine monuments. Zealous Twelver Shi'ites, the Qutbshahis had many ties to Iran: they donated several manuscripts to the shrine of Imam Riza at Mashhad, and their court in the Deccan became a center for Persian literature.

The link to Iran is clear from the Qutbshahi album, which contains calligraphic specimens from famous Safavid calligraphers as well as new ones written at the Deccani court. The most unusual are found in the second half of the album (fols. 7v–15). These folios contain fifteen poems composed by the ruler himself in the southern dialect of Urdu known as Dakhni Urdu or simply Dakhni, meaning 'southern' and from the same root as the English 'Deccan.' Assembled in the form known in Persian as *vassali*, in which the individual strips are mounted on a larger sheet,³⁷ each poem occupies either a full or a half page. The poems are all religious in content, with a strong Shi'ite emphasis. Some deal with 'Ali, others with the imams, and several with a Shi'ite festival especially enjoyed by Indian Muslims called Shab-i Barat, a night two weeks before Ramadan that is celebrated with merrymaking. Studying the contents and styles of the folios, David James concluded that the second half comprising the ruler's poems in Urdu belonged to an album compiled for Muhammad Quli in 1014/1605 at his new court in Hyderabad.³⁸

To pen these poems, calligraphers at the Qutbshahi court used traditional scripts but new arrangements and colors. Like calligraphers elsewhere, they penned the poems in lines of alternating size and script, but they followed an unusual format. The opening two hemistiches are written horizontally in large *thuluth* or *muhaqqaq*; the second two are also written horizontally but in a small *naskh* in a single line sandwiched between the first two. The final lines are written diagonally at the bottom in *tawqi'* and *riqa'*. Calligraphers also expanded the color range used in these calligraphic specimens. Whereas religious verses or pious sayings were traditionally written in black on a plain ground,³⁹ Deccani calligraphers opted for a boldly colored ground, particularly brick red or gold and sometimes marbled, and scripts of different colors – black, white, gold and blue – occasionally with each word in a line written in a different color.

This page (Figure 12.3) contains the same poem by Muhammad Quli about the Shab-i Barat copied by two different court calligraphers. The upper one is signed and dated in the lower left corner by Zayn al-Din 'Ali, with his epithet Qutbshahi added at the top of the diagonal lines in white on a gold ground. The lower version is similarly signed in the lower-right corner by Muhammad Riza. Zayn al-Din was the better known of the pair, and his biography can be put together from signed works.⁴⁰ Son of Darvish Muhammad, Zayn al-Din became an important calligrapher at the Qutbshahi court around the turn of the sixteenth to seventeenth century (1591–1605). While there, he penned a lavish copy of the poems composed by the ruler

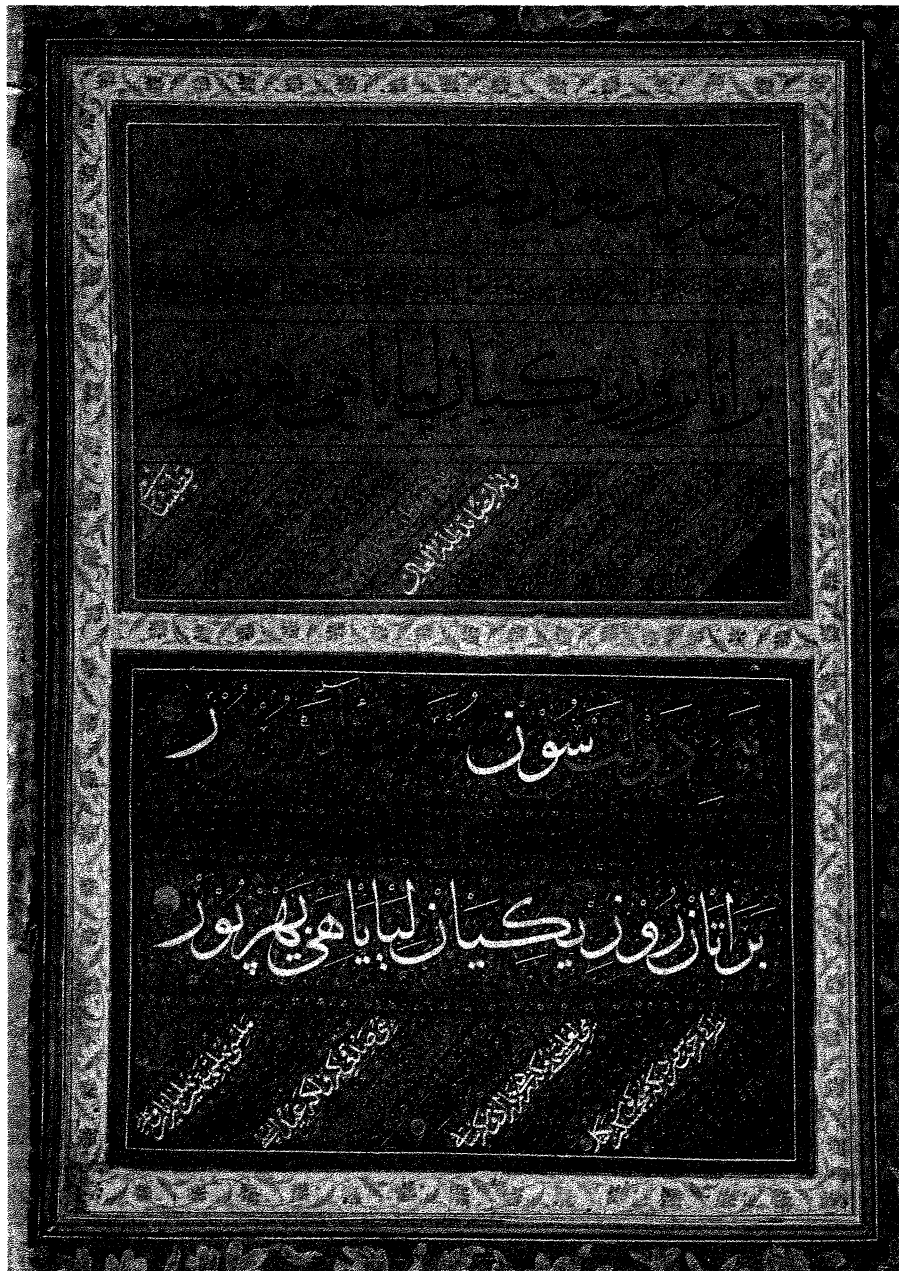


Figure 12.3 Page with a poem praising Shab-i Barat in Dakhni Urdu calligraphed by Zayn al-din 'Ali (top) and Muhammad Riza (bottom) from an album compiled in 1014/1605–6 for Muhammad Quli, Qutbshahi ruler of the Deccan.

Persian was the literary language at the Qutbshahi court in the Deccan, but calligraphers there also penned verses written by the poet-ruler Muhammad Quli in the vernacular language of Dakhni Urdu. This poem celebrates Shab-i Barat, a nocturnal celebration held two weeks before Ramadan that was popular with Shi'ites in India. The calligraphers followed Iranian models in juxtaposing different sizes and scripts of the Six Pens, but added exuberant color.

himself, the first great Urdu poet.⁴¹ With its splendid double page of illumination and eight illustrations including pricked gold surfaces, iridescent colors, and areas of applied marbled paper, this manuscript is one of the most richly illustrated books produced in India.⁴² It must have been the ruler's personal copy. In its colophon, Zayn al-Din signed himself al-Shirazi, showing that he or his family emigrated from southern Iran. To judge from the calligraphic styles he used in the album, Zayn al-Din probably also designed architectural inscriptions for the ruler's new capital, although none has survived.⁴³ After Muhammad Quli's death, Zayn al-Din apparently went to work for the Mughals, for he penned another manuscript for Jahangir's courtier Murtada Khan.⁴⁴

Muhammad Riza, by contrast, is known only from works in this album. They show that he too was a court calligrapher for the Qutbshahis, for he once signed his work *bandah-i dargah* (servant of the court) and elsewhere adds that it was carried out in the city of Hyderabad, Muhammad Quli's new capital. Despite their similar positions in the court atelier, the two calligraphers used different verbs in their colophons. Zayn al-Din signed his work *katabahu* (literally, he wrote it), meaning that he composed the arrangement of verses. Muhammad Riza used the verb *mashaqahu* (literally, he copied it), meaning that he copied the work of his contemporary. Comparing the two specimens affords us a rare opportunity to see the difference between composition and copying done at the same time.

Muhammad Riza imitated Zayn al-Din's layout, but varied the color, decoration, spacing, and script. Muhammad Riza's copy is flashier in color and design. In both, the calligraphy is set against a brick-red ground, but his is deeper and has an elaborate gold scroll. In this way, Muhammad Riza was paying homage to the tradition of *thuluth* set against a scrolling ground that had been a hallmark of Yaqut's followers in fourteenth-century Iran (Figure 7.5). By the fifteenth century the style had passed to the Deccan, where it was used for the finest inscriptions from the Bahmani period, those carved in black basalt in the tomb of Shaykh Khalilallah dated 1450 in nearby Bidar.⁴⁵ The red ground too was further embellished by calligraphers working in the Deccan. A quatrain about eyebrows penned in *nasta'liq* by Mulla 'Arab Shirazi, another Iranian scribe who worked at the Qutbshahi court in the early seventeenth century, is written on a brilliant paper marbled in orange and green and decorated with gold arabesques with touches of blue.⁴⁶ These are some of the earliest examples of marbled paper to survive from the region.⁴⁷

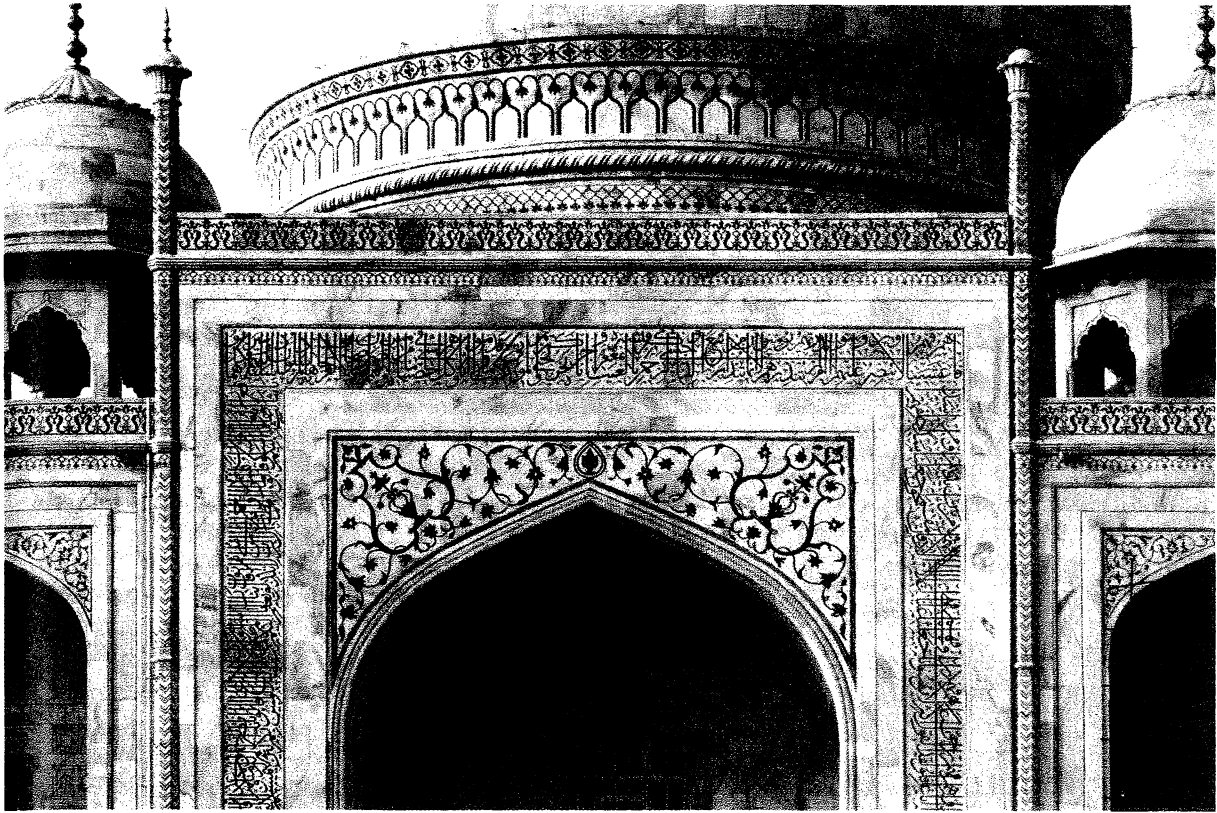
Muhammad Riza also embellished the colors of ink. Zayn al-Din had used black ink for the first two lines written horizontally and then added two colors in the diagonal line: blue for the final hemistich in the five-line poem and white for an additional line introducing another two-line verse. Muhammad Riza added gold, blue, and white to the top line, penning each word in a different color so that the central word (and subject of the poem), *Shab-i Barat*,

stands out in black. He switched to white for the second hemistich, a contrast to the black used for the second and third lines. He then continued alternating white and black in the diagonal lines, but also inserted blue for the final hemistich of the first poem, as Zayn al-Din had, and introduced another color – green – for non-poetic text, both the additional line introducing the second poem and for his signature at the end. To balance the blue in middle, he included the invocation to God (*huwa al-‘aziz*; He is the Dear One) at the far left in place of Zayn al-Din’s epithet Qutbshahi. Both calligraphers used color to enhance meaning, but Muhammad Riza’s example is a more complex arrangement derived from the earlier one.

Both calligraphers also juxtaposed different scripts. Zayn al-Din juxtaposed the two large scripts, *thuluth* and *muhaqqaq*, for the first two hemistiches, both written in black. Muhammad Riza, in contrast, used *thuluth* for both hemistiches but contrasted the colors. Both calligraphers also wrote the intervening horizontal line in a smaller *naskh*, but these vary in detail. Zayn al-Din’s is slightly larger and more sloping; Muhammad Riza’s smaller and flatter. In the second hemistich, he also added long swinging tails on the final *yas*, a feature typical of the style formed in fifteenth-century Shiraz. Both calligraphers used *tawqi‘* for the diagonal lines, with upturned tails that mirror those used in *thuluth*, but Zayn al-Din added his name in its smaller counterpart *riqa‘*. These small changes are variations on a theme. Specimen and copy form point and counterpoint and show the inventive and rich (to some eyes, even gaudy) tradition of Arabic calligraphy practiced in the Deccan at the turn of the sixteenth to seventeenth century.

Thuluth, the script used in three of the four large horizontal bands in the calligraphic specimens from the Qutbshahi album, was standard throughout India, as in Iran (Figure 10.2), as the architectural script *par excellence*, used for monumental inscriptions, some containing Koranic texts. The most famous examples, and indeed some of the most majestic Koranic texts ever written, are those designed for the Taj Mahal, the tomb that the Mughal emperor Shah Jahan had erected outside of Agra in memory of his favorite wife Mumtaz Mahal.⁴⁸ Koranic bands frame the gateways, archways, and cenotaphs. The largest (Figure 12.4) encircles the arches on the exterior of the building. It begins on the south side, the one seen upon entering through the main gateway, and continues around the west, north, and east sides to contain all eighty-three verses of Sura 36 (Ya Sin).⁴⁹

Another large inscription band with familiar Koranic passages – Suras 67 (al-Mulk), 48 (al-Fath), 76 (al-Insan), and verses 53–4 of Sura 39 (al-Zumar) – circumscribes the interior. Beginning on the south-east, it encircles the base of the dome and then runs around the eight arches. The interior inscription is signed twice by the designer. A small signature and date are inscribed in cartouches tucked in at the end of the part ringing the dome. The text there says that the son of Qasim al-Shirazi, ‘Abd al-Haqq Shirazi, titled (*al-mukhatab bi-*)



Amanat Khan, composed it (*katabahu*) in 1045/1635–6. The second signature at the end of the part framing the arches is more prominent (Figure 12.4a). Written in the same size and script as the rest of the Koranic band, it states that the work, finished with God's help, was composed by Amanat Khan al-Shirazi. The date is inserted in smaller letters between the tall verticals: it gives both the hijra year 1048 and the twelfth year of the reign of Shah Jahan. Together, these dates delimit a seven-month period from October 1638 to April 1639.

Such a prominent signature is unusual. The calligrapher's name was typically placed at the end of an inscription band, but was usually distinguished from the main text by placement, size, or color. 'Ali Riza 'Abbasi's signature at the end of the foundation inscription over the doorway of the Mosque of Shaykh Lutfallah in Isfahan (Figure 10.2), for example, is set vertically; Zayn al-Din 'Ali's signature at the end of his calligraphic specimen (Figure 12.3) was written in a *small rika*; and Amanat Khan's signature at the base of the dome is given in small script in cartouches. In the second signature, dated three years later, however, Amanat Khan is given full-status, testifying to his increased prominence at the court of the affluent Mughals.⁵⁰

Like many contemporary calligraphers, Amanat Khan and his older brother had emigrated from Shiraz, where they had belonged to

Figure 12.4 View of the Taj Mahal from the south showing Sura 36:1–21 designed by Amanat Khan and dated between October 1638 and April 1639.

Amanat Khan designed the bands of Koranic inscriptions framing the gateways, arches, and cenotaphs in the Taj Mahal. Executed in black marble set into gleaming white with tall verticals and rhythmic curves, the inscriptions evoke the divine power of the word mentioned in the text.



Figure 12.4a

a noted family of calligraphers, to India, where they rose in the Mughal bureaucracy. Amanat Khan's brother, who was awarded the title Afdal Khan, became prime minister, the highest rank held by someone outside the princely line. Amanat Khan served as calligrapher in the court workshop. In 1021–2/1612–14 he designed the inscriptions for the tomb that Shah Jahan built for his father Akbar at Sikandra.⁵¹ Two decades later, the calligrapher designed those for the Taj Mahal, for which he was awarded the title Amanat Khan and an elephant. Like many other calligraphers such as Zayn al-Din 'Ali, Amanat Khan not only designed monumental inscriptions, but also penned manuscripts. The only one surviving in his hand is a small single-volume Koran dated 1050/1640–1, the year before his death.⁵² Pocket-sized (9 × 14 cm), it is written in a rough *naskh*, perhaps the personal copy for an old man.

In designing the nearly one thousand meters of Koranic inscription bands around the Taj Mahal, Amanat Khan used a tall elongated *thuluth* in which *alif* measures some sixteen dots in height. The tall verticals, which are capped with short thick hooks, are arranged to march across the band. The rhythm is emphasized by the vocalization set at the bottom. The tall verticals allow space for two tiers of text, which are often divided by the long returning tail of final *ya'*. This split *thuluth*, devised in Iran (Figure 10.2), was then adopted for monumental inscriptions from Anatolia to India.⁵³ Amanat Khan exaggerated the style, playing particularly with the returning tail of final *ya'*. He extended it so that it stretches backwards across one-third, one-half, or even the entire length of the side. Visually it neatly divides the inscription into two tiers and juxtaposes the many tall verticals that poke up like trees. In his main signature on the Taj Mahal (Figure 12.4a), he repeated the form, once in the final *ya'* of his epithet al-Shirazi and a second time in the word *fi* (in) introducing the date. These two horizontal strokes demarcate his signature. He filled the space between the verticals in the middle tier with diacritical marks and the top tier with smaller words making up the date. In his signature, the final *ya'* thus functions both semantically and visually. In the Koranic texts, however, the long horizontal strokes seem to play a purely visual function as they do not set off phrases or verses. Presumably the viewer was supposed to know the Koran by heart so that a few key words would trigger recognition. He did not need to read the text literally.

The inscription bands on the Taj Mahal show the hand of an expert calligrapher. The link to a calligraphic style is emphasized by color. Whereas 'Ali Riza's inscriptions in Safavid Isfahan (Figure 10.2) were executed in white tile against a blue ground, Amanat Khan's are done in black marble that is inset into white. Compared to the Safavid prototype, the Mughal materials are more expensive and the technique more labor-intensive. The contrast of black on white, the one praised by Abu'l-Fadl as the best in preventing ambiguity, recalls polished paper and ink and makes the text stand out from afar.⁵⁴ On the

Taj Mahal, color is reserved for the floral decoration in the spandrels, which is executed in the *pietra dura* technique of inlay with semi-precious stones such as carnelian, jasper, and topaz. The text, by contrast, is pristine black on white. It trumpets the glory of God.

Most of the Koranic texts on the Taj Mahal and surrounding buildings are chapters that emphasize eschatological themes, notably the Day of Judgment. Wayne Begley suggested that they were designed as an epigraphic program meant to drive home the message implicit in the building's form and location that the tomb was an allegorical representation of the Throne of God set above the gardens of Paradise on Judgment Day.⁵⁵ Begley's interpretation, however, overlooks the fact that manuscripts containing such selections of Koranic texts, clearly made without any reference to the Throne of God, were popular across the three great empires.⁵⁶ The Ottomans favored the thirtieth *juz'* (Suras 78–114) as well as other well-known *suras* including 6 (al-An'am), 36 (Ya Sin), 55 (al-Rahman), and 67 (al-Mulk).⁵⁷ A different set was preferred in Iran and India, as shown by a handful of manuscripts that contain the same five *suras*: 36 (Ya Sin), 48 (al-Fath), 56 (al-Waqi'a), 67 (al-Mulk), and 78 (al-Naba').⁵⁸ These *suras*, like those inscribed prominently on the Taj Mahal, were among the most popular,⁵⁹ and manuscripts containing Koranic selections must have been deemed collectibles, desirable not only for content and calligraphy but also cost.

Smaller, shorter, and therefore cheaper than manuscripts with the complete Koran texts, these ones with selections were nonetheless penned in the same format and scripts. The earliest of this group with five *suras*, for example, was penned by 'Abd al-Qadir ibn Sayyid 'Abd al-Wahhab al-Shirazi, another scribe from southern Iran who had close links to the Qutbshahis and may have even emigrated to their court in the Deccan.⁶⁰ Comprising only 24 folios of small size (17 × 11 cm), it follows the format used in many contemporary Koran manuscripts, with lines of large *muhaqqaq* and *thuluth* sandwiching smaller panels of *naskh*, as in the copy penned by Ruzbihan al-Shirazi (Figure 10.1). 'Abd al-Qadir's selected text, however, is one-twentieth the length of Ruzbihan's complete copy, and each page only one-seventh the size of the earlier one.

Koran manuscripts in this style juxtaposing various sizes and scripts continued to be produced in India into the second half of the seventeenth century, long after they had gone out of fashion in Iran. One example dated 1097/1685–6 still resembles the style codified by Ruzbihan nearly two centuries earlier (Figure 10.1).⁶¹ Nevertheless, the Indian manuscript, penned by 'Abd al-Rahman ibn Nur al-Din Muhammad Ahmadabadi, shows certain distinctive mannerisms. For example, the calligrapher sometimes placed dots inside the loops of the letters. He also transformed the *ya'* in the word *al-rahim* from a tooth into a polylobed arch. His copy bespeaks the end of a long and somewhat self-conscious tradition, not surprisingly because by this time demand for such multi-script Koran manuscripts had waned in favor of a new type: manuscripts in a clear, readable *naskh*.

Demand for Koran manuscripts in *naskh* peaked during the reign of the Mughal emperor Awrangzib (r. 1658–1707), a fiercely pious Muslim. According to the nineteenth-century chronicler Haftqalami, during Awrangzib's reign, the calligrapher 'Abd al-Baqi Haddad emigrated to India from Iran, where 'in recent times he had borne off the polo ball of precedence among writers of *naskh* and made *naskh* the bride of calligraphy by embellishing and adorning it in an new manner.'⁶² The calligrapher is said to have presented Awrangzib with a Koran manuscript containing the complete text on a mere thirty folios. For this feat he was awarded the title Yaqut Raqam (Yaqut Writer). Before returning to Iran, 'Abd al-Baqi trained several pupils, most of whom were also known as Yaqut Raqam. The tradition of the Six Pens begun in Baghdad at the end of the thirteenth century thus persisted for four hundred years across thousands of miles.

The Mughals, like their Safavid and Qajar counterparts, were trained not only to appreciate but also to pen calligraphy. While Akbar, who may have been dyslexic, could only write laboriously, his son and grandson, Jahangir and Shah Jahan, had better hands, and Awrangzib was a commendable calligrapher known for his *naskh*.⁶³ The royal family also collected calligraphy. Shah Jahan's wife Mumtaz Mahal gave a fine Koran manuscript to their eldest son Darashikuh, himself a calligrapher who left an album of calligraphic specimens and individual examples.⁶⁴ Awrangzib's children also penned several copies of the Koran. His daughter Zinat al-Nisa', who owned a magnificent copy made for the Safavids, penned a small personal copy.⁶⁵ Her elder sister Zib al-Nisa', who is said to have memorized the Koran, collected not only books but also their authors. She invited the theologian Mulla Safi al-Din Ardabili to reside in Kashmir, where he made a Persian translation of the Koranic commentary that came to be known as *Zib al-Tafsir* (The Ornament of Commentaries) after his patron. These Mughal women were only the latest in a long line of female calligraphers and patrons stretching back some seven centuries and a quarter of the way around the globe.⁶⁶

In the seventeenth and eighteenth centuries, Kashmir emerged as a new center for the production of fine manuscripts, most of them written in *naksh*.⁶⁷ In the sixteenth century, many Kashmiri calligraphers emigrated to the Mughal court, especially after Akbar annexed the territory in 1586,⁶⁸ but local production in Kashmir revived a century or two later. According to the French traveler Victor Jacquemont, in 1831 some seven to eight hundred copyists worked there, filling commissions for manuscripts of the Koran, the *Shahnama*, and a small number of other texts.⁶⁹ Many of these have survived, but it is difficult to establish a chronological sequence or a group by an individual hand, for the dates in the colophons of many illustrated codices have been altered and most of the Koran manuscripts are unsigned.

The key manuscript in anchoring the Koran codices made in Kashmir (Figure 12.5) is a copy in Tehran whose colophon says that

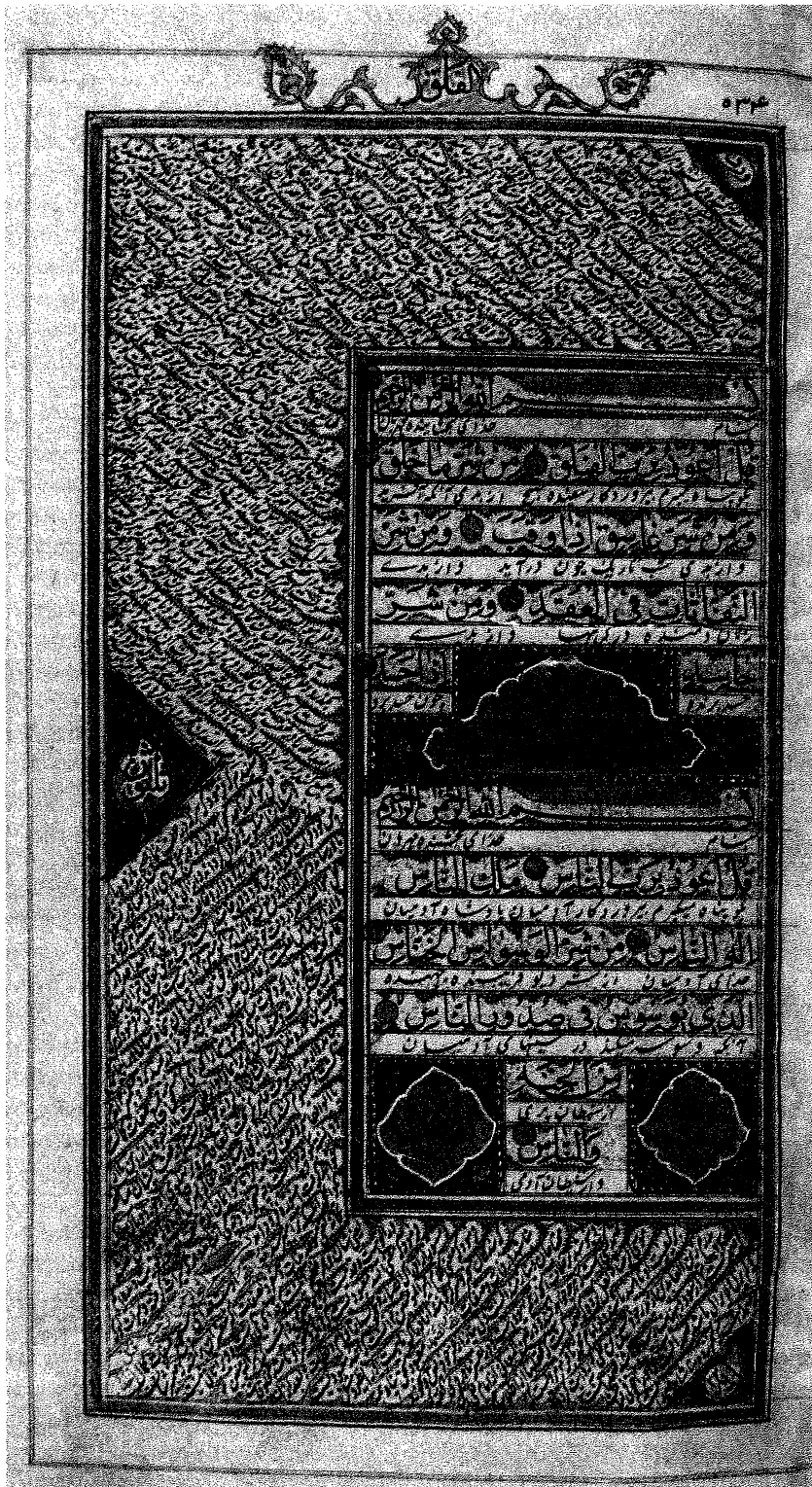


Figure 12.5 Final page with Suras 112–14 from a Koran manuscript with twelve lines to the page, interlinear Persian translation, and marginal Persian commentary transcribed in Kashmir in 1173/1759–60.

Kashmir was a center for the production of manuscripts with fine illumination and illustration, but many of the dates in the colophon have been altered, making it difficult to establish a chronological sequence. This Koran manuscript, precisely dated and localized, is the keystone to placing the group and shows the type of script, commentary, and illumination that were used there.

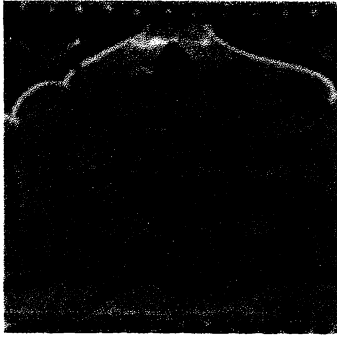


Figure 12.5a

it was transcribed in the land of Kashmir in 1173/1759–60.⁷⁰ It is transcribed in a neat bold *naskh*, with verses marked by gold disks outlined in black. The text on the opening and closing pages is set in cloud bands. *Sura* headings are done in blue *riqa'* over gold, with *alif* often linked to *lam* and a distinctive knot like the seal of Solomon in place of a final letter, such as the *ta' marbuta* of *makkiyya* (Figure 12.5a) at the end of the heading for Chapter 114 (Surat al-Nas). Between each line of Koranic text is a Persian translation written in red *nasta'liq*. The margins are filled with a commentary in Persian, written with unusual density in diagonal lines set in cloud bands. The Arabic phrase to be glossed is written in red *naskh*, followed by lengthy commentary in black *nasta'liq*. All of this is crammed into a small page that measures only 23 × 14 cm.

This Koran manuscript bears many similarities to illustrated codices. The lynch-pin of Adel Adamova and T. Grek's delineation of the Kashmiri style of illustrated manuscripts is a copy of the *Mahbur al-Qulub*, a collection of moral tales and anecdotes by Barkhurdar ibn Mahmud Turkoman Farahi, known as Mumtaz, made in Kashmir in Rabi' II 1211/October–November 1796.⁷¹ Like the Koran manuscripts, it has a double frontispiece with marginal text in *nasta'liq* set in cloud bands and floral illumination. Taken together with other undated copies, these manuscripts document a flourishing provincial school that may have been in operation since the seventeenth century, for other larger and finer Koran manuscripts share similar features and may have been made there as well.⁷²

In addition to the Six Pens, Mughal scribes, like their Safavid counterparts, used the two hanging scripts. In India, as in Iran, the most important one for transcribing Persian literature was *nasta'liq*. Of the eleven experts practicing during Akbar's reign – a time when, according to Abu'l-Fadl, the script received a new impetus – the first mentioned was Muhammad Husayn al-Kashmiri, known as *zarin qalam* (Golden Pen).⁷³ A native of Kashmir, he came to work for Mughals, where he calligraphed the most splendid manuscripts of the age, including the copy of Amir Khusraw's *Khamasa* made for Akbar (Figure 12.6).⁷⁴ Like its contemporary, the copy of Nizami's *Khamasa* penned by 'Abd al-Rahim (Figure 12.1), this manuscript is medium-sized, with text written on biscuit-colored polished paper in four columns and twenty-one lines of exquisite *nasta'liq* with different colors of *nasta'liq* used for headings and rubrics.⁷⁵

Mughal calligraphers followed the style of *nasta'liq* perfected at the Safavid court. Abu'l-Fadl praises Muhammad Husayn's hand specifically for its balanced proportion of extensions (*maddat*) and curvatures (*dawa'ir*), a judgment in keeping with the chronicler's enumeration of scripts hierarchically from the straight *ma'qili* to the curved *nasta'liq*.⁷⁶ According to Abu'l-Fadl, Muhammad Husayn was so good that critics considered him the equal of Mir 'Ali, referring to the Safavid master Mir 'Ali Haravi whose work was especially prized by the Mughals and often mounted in albums (Figures 2.3 and 10.6).

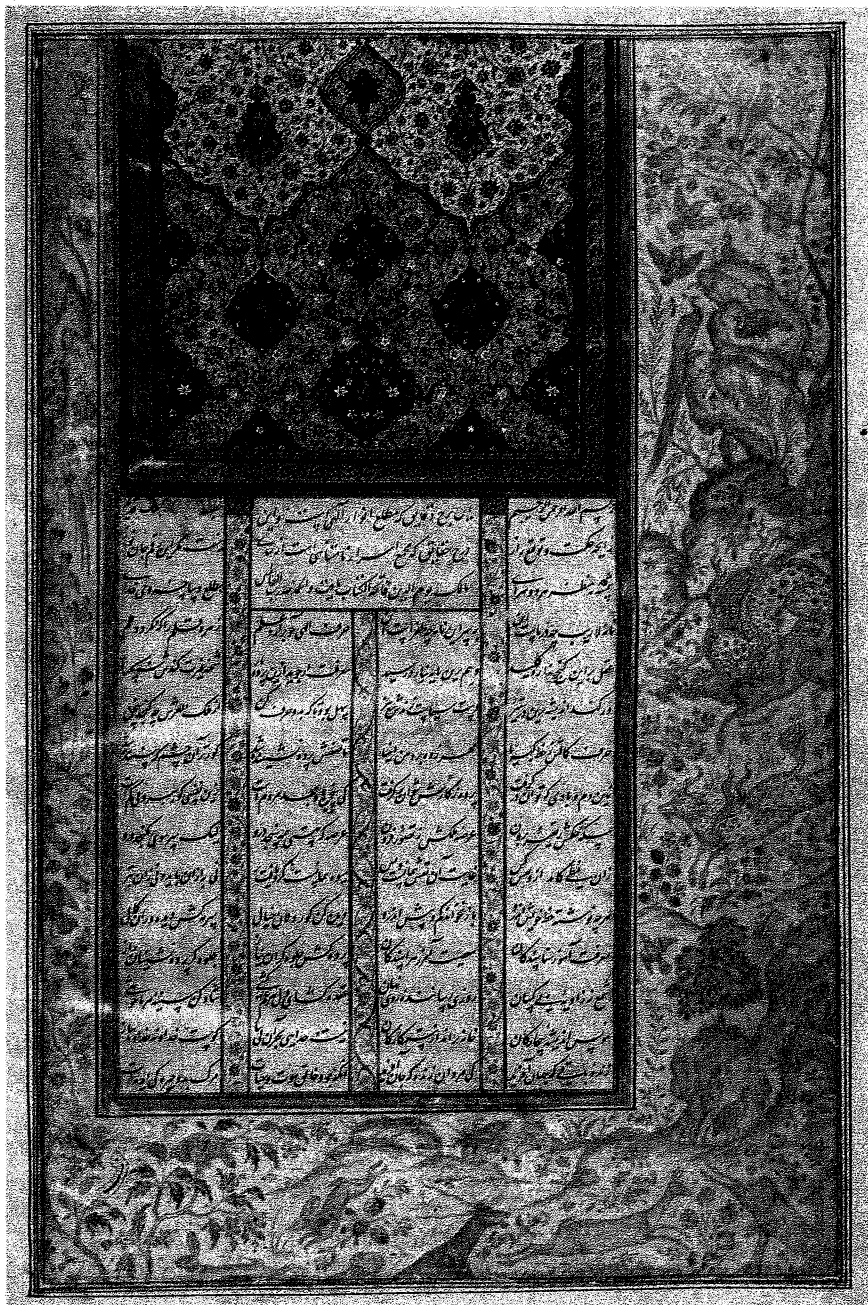


Figure 12.6 Page from a copy of Amir Khusraw Dihlavi's *Khamsa* with twenty-one lines per page penned by Muhammad Husayn al-Kashmiri (known as *zarin qalam*) and finished in the forty-second year of Akbar's reign (March 1597–March 1598).

Muhammad Husayn was one of the finest calligraphers working for the Mughal emperor Akbar. He penned a superb *nasta'liq* in the style of Mir 'Ali Haravi, with a balance between extended and close strokes. His hand, however, is not as fine as his Safavid predecessors, and he did not use an alternative display script, but rather penned headings and rubrics in different colors of *nasta'liq*.

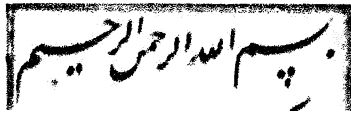


Figure 12.6a

Indeed, the Mughal calligrapher's hand is very close to its Safavid prototypes: compare, for example, the basmala from Muhammad Husayn's *Khamsa* for Akbar (Figure 12.6a) with one penned by the Safavid calligrapher Shah Mahmud Nishapuri in the Koran manuscript he made for Shah 'Abbas in 945/1538 (Figure 10.7a): both share the same sweeping strokes and proportions.

Shah Mahmud's hand, however, is finer, showing a greater control of the pen. The contrast between thick and thin strokes is more marked, as in the razor thin connector between *ya'* and final *mim* in *al-rahim*. His *alifs* are slightly taller and his tails to final *mim* slightly longer and more vertical. These strokes lend more elegance to his hand. The endings to his letters are also smoother. Those of Muhammad Husayn, by contrast, trail off. Note, for example, the ungainly final *ha'* in *allah* and the end of undotted *nun* in *al-rahman* that impinges on the *ra'* of *al-rahim*.

In addition to manuscripts, the Mughals also adopted the hanging *nasta'liq* for inscriptions on various types of objects. One is coins, and those minted for the Mughals, especially the large gold ones known as mohurs (from the Persian *muhr*, seal), have been called the loveliest of all Islamic coinages.⁷⁷ Their designs of finely shaped lines and large flowing letters silhouetted against a delicate floral scroll are superb, probably because the dies were prepared under the auspices of the leading calligraphers of the day. 'Abd al-Samad al-Shirazi, the Iranian-born calligrapher and artist who emigrated to India, where he became a leading artist in the Mughal scriptorium, for example, was appointed director of the imperial mint in 985/1577–8.⁷⁸ In the later years of Akbar's reign, both the shape of the coins and their legends changed, with the imperial mint issuing square as well as round coins, some with poetry, others dated to the regnal year, and still others including punning references to the monarch.⁷⁹

The mohurs issued under Akbar's son Jahangir, 'a prince of moneyers,' are even more refined (Figure 12.7).⁸⁰ The obverse (left) contains the profession of faith, or *kalima*, saying that there is no god but God and Muhammad is His prophet; the date in hijra years (in this case, 1015/1606–7); and the mint (Lahore). The reverse (right) has the

Figure 12.7 Mohur (gold coin) issued for Jahangir at Lahore in AH 1015 and regnal year 1 (9 May–24 October 1606).

The gold coins issued by the Mughals are some of the finest ever known. They are inscribed with the ruler's name and titles in a flowing *nasta'liq* silhouetted against a floral scroll. Both the layout and the calligraphy became a hallmark, copied not only on later coins issued in India but also in Iran.



emperor's name and titles and his regnal year. The design is based upon that introduced under his father Akbar, but the calligraphy is more graceful and the circular field is divided by long flowing strokes into five lines that read from bottom to top: *sana 1/nur al-din/muhammad/jahangir padshah/ghazi* (year 1, Nur al-Din, Muhammad, Emperor Jahangir, the warrior). The regnal date is tucked at the bottom, with the flowing stroke of *sin* in *sana* (year) serving as the bed for the numeral 1. Written as a single digit, it is inserted neatly between the paired verticals of *al-* in *al-din* in the line above, which contains the ruler's honorific (*laqab*), Nur al-Din (literally, light of the faith). The middle line has the ruler's Muslim name, Muhammad, the same one used by his father. The connector between *ha'* and the second *mim* in the middle of the word *muhammad* has been extended to form a seat for the ruler's Persian name and title given in the fourth line above: Jahangir (literally, world-conqueror) *padshah* (emperor). The top line contains a final title *ghazi* (warrior), set off from the line below by the long returning tail of final *ya'*. The letters are written with swelling strokes that create a dynamic and organic quality, enhanced by the naturalistic ground.

The arrangement of horizontal strokes to divide the field into tiers became a hallmark, used on most coins issued later not only in India but also in Iran. In 1026/1617, Jahanghir's rival, the Safavid shah 'Abbas, reformed the minting process in Iran, adopting the script and layout used by the Mughals and adapting the text to include visual as well as verbal puns. As on Mughal coins, both obverse and reverse on 'Abbas' post-reform coinage are written with long swinging strokes. The obverse bears the Shi'ite profession of faith written in a similar style of *nasta'liq* used for the name and titles of the Mughal ruler, including the extended *muhammad*. But the Safavids replaced the returning tail of final *ya'* in the title *ghazi* with the tail of 'ali, so that the field is divided by the names Muhammad and 'Ali. In doing so, the Safavids created a verbal as well as a visual pun.⁸¹ The exchange of calligraphic designs on coins was one part of the artistic competition between India and Iran in the early seventeenth century, a rivalry that was expressed not only in words but also in pictures.⁸²

The Mughals adopted the same style of elegant *nasta'liq* for imperial seals.⁸³ The earliest had been written in a thick *thuluth* surrounding heraldic devices that connected the Mughals to their Mongol forebears.⁸⁴ Under Humayun, perhaps after his exile in Iran in the 1540s and 1550s, a new style of flowing *nasta'liq* was introduced. It continued to be used under his successors, becoming more graceful and pendant according to the various round, oval, and cartouche shapes of the seal. According to Abu'l-Fadl, these seals were stamped on official documents (*farman*), including vouchers (*sanad*), royal grants (*sayurghal*), and stipends (*parwancha*).⁸⁵ Very few of these documents have survived, due not only to the vicissitudes of weather and time but also to the destruction of the Mughal chancery.⁸⁶

One rare example from the early period is an edict issued by Akbar, probably in the 1590s, ordering the ruler of Cambay to allow the Jesuit fathers in Surat to build a house of worship (*ibadatkhana*) there, a subject akin to that covered in the earlier Fatimid (Figure 6.7) and Tughluq (Figure 9.7) decrees.⁸⁷ Like them, the Mughal edict is written in ink on paper, but with more colorful red, blue, and gold highlights. The top line begins with the word *farman* (edict) and then gives Akbar's official titles. The text proper is written below in several lines of the hanging *ta'liq* script of the type used in Iran, with lines ascending to the left and hook-like *kih*. The most striking innovation of this document is not the calligraphy, which is rather rough, but the exquisite illumination. The text is set in cloud bands, and the spaces between the lines are filled with flowering plants and animals, including a peacock with a large tail.

Over the course of the seventeenth century, documents issued by the Mughal chancery became increasingly stylized and written in *nasta'liq*, as shown by the much finer decree sent to Jaswant Singh, Raja of Marwar, during Awrangzib's fourth regnal year (Figure 12.8).⁸⁸ It was issued in response to a petition (*'arzadasht*) that the Raja had sent the emperor earlier that month from Awrangabad. In the responding decree Awrangzib ordered Jaswant Singh to remain in the city and gather his troops, including musketeers. Jaswant Singh played an important role in the Mughal war of succession that broke out among Shah Jahan's sons following the emperor's illness in 1657. Despite Awrangzib's favor (as shown by this *decree*), the Raja changed sides several times, and following his death in 1678, Awrangzib seized Marwar, the foremost Hindu state in the region, and placed it under Mughal rule.

Unlike the earlier decree issued under Akbar, this one issued under his great-grandson Awrangzib is intact and shows the full panoply of Mughal epistolary style. At the top the basmala is written in gold *thuluth* with red diacriticals, sandwiched between attention-getting red slashes. Below is the *tughra* of Awrangzib (Figure 12.8a), written in the same script and colors, but with much taller verticals. In contrast to Akbar's *tughra*, the one for Awrangzib is divided rigidly into horizontal bands formed by the returning tails of the letters that juxtapose the tall upright verticals. In style, it recalls the monumental calligraphy used for several centuries for official texts throughout the subcontinent.⁸⁹ It also echoes the seals in square kufic issued three centuries earlier by the Ilkhanids (Figure 7.13a). To the right of the *tughra* is an impression of the emperor's seal, modeled on that of his great-grandfather: the emperor's name in the center is surrounded by smaller medallions giving the date of his accession (1069/1658–9) and his line back to Timur. Both *tughra* and seal evince the Mughals' pride of lineage.

The text of Awrangzib's edict is written below. It begins with the title – decree (*hukm*) obeyed by all the world, etc.) – and the emperor's lengthy epithets, written first vertically and then horizontally across the top three lines. This part is usually written separately from the

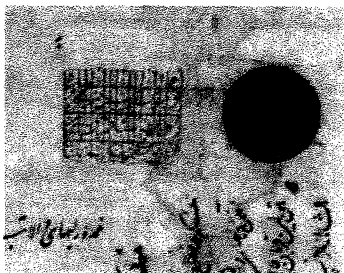


Figure 12.8a

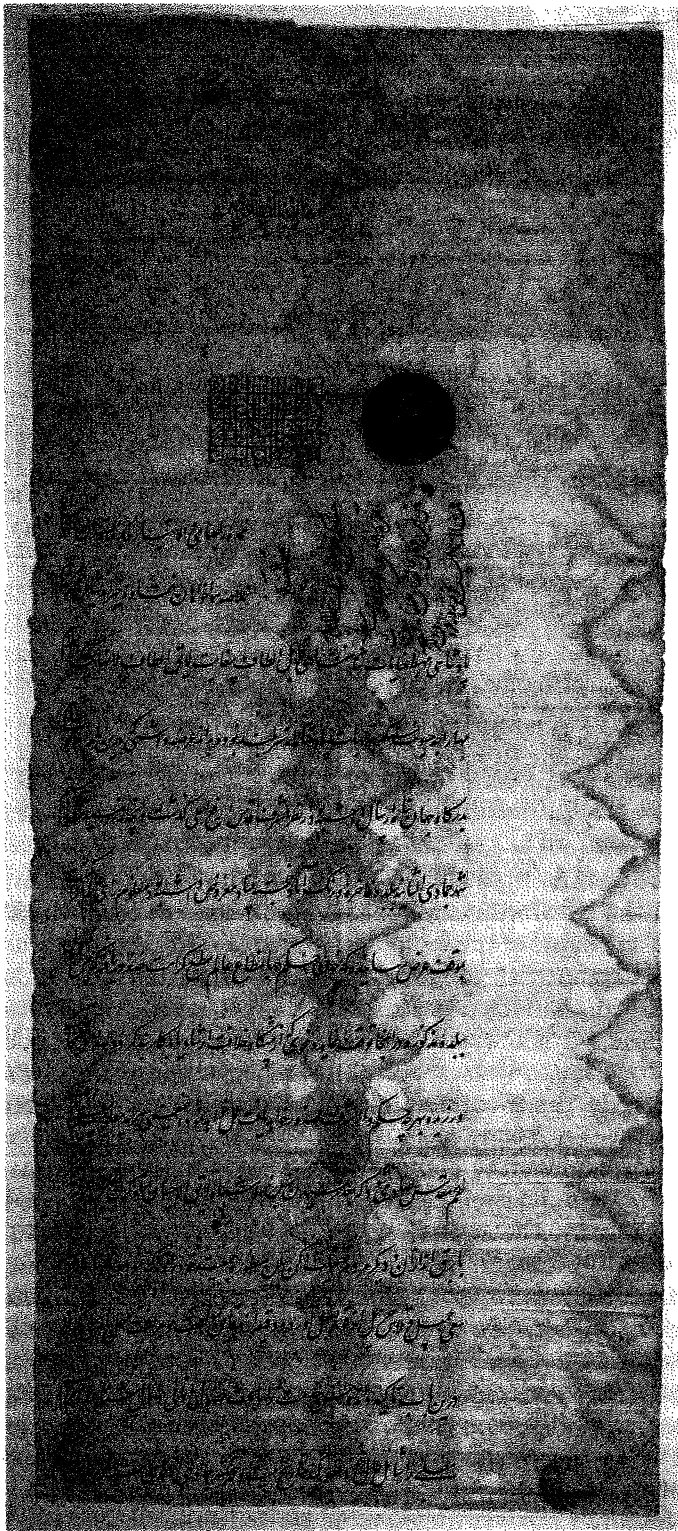
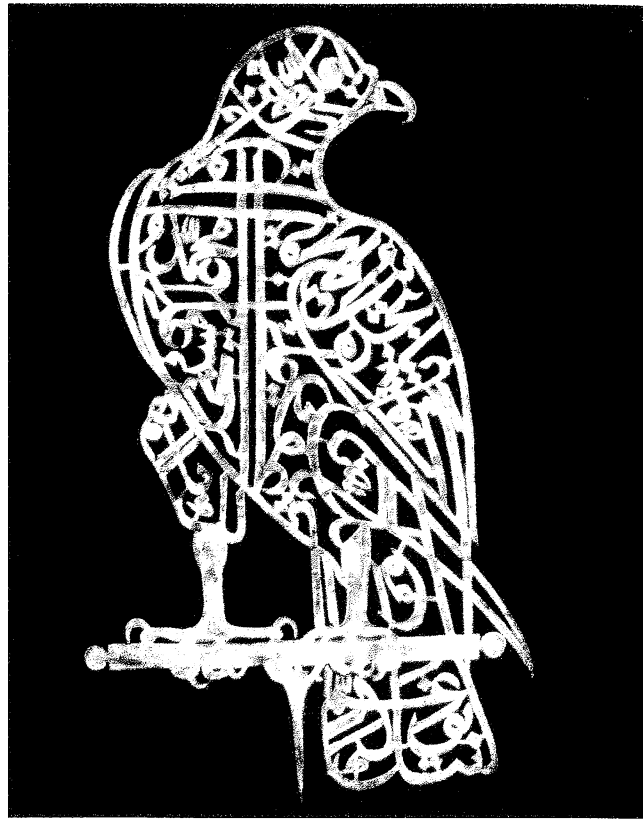


Figure 12.8 Decree with fourteen lines issued on 25 Jumada II 1072/15 February 1662 by the Mughal emperor Awrangzib ordering the Raja of Mawar to stay in Awrangabad.

This is one of the few edicts to survive from Mughal India. Transcribed in a fluid *nasta'liq* in flat lines with the emperor's seal and emblem (*tughra*) at the top, the text orders Jaswant Singh, Raja of Marwar, to remain in Awrangabad. It shows the full glory of the Mughal epistolary style.

Figure 12.9 *Gilded copper standard in the shape of a hawk comprising thuluth letters spelling out the Shi'ite prayer known as Nad 'Ali.*

Zoomorphic compositions like the ones found in Iran were also popular in India. This copper standard contains the Nad 'Ali, the well-known Shi'ite prayer invoking the aid of 'Ali. It was probably made in the Deccan in the late seventeenth century, but was based on a paper design.



rest of the document, but the vertical layout is unusual and may be a quirk on the part of the scribe. The text proper begins on the fourth line with the name of the recipient, Maharaja Jaswant Singh, and ends on line fourteen with the date. The scribe's *nasta'liq* hand is much more uniform than his predecessor's *ta'liq*. The lines are written on a flat baseline, with a few words piled at the left to prevent additions. The flat baseline contrasts with the hanging syllables in the *nasta'liq* script. In style, the document recalls the contemporary one written in the name of the Safavid shah 'Abbas (Figure 10.11), but the script is more fluid and the individual words and dots slope more dramatically.

The Mughals and their contemporaries in India also enjoyed examples of the various decorative scripts developed in Safavid Iran. They too practiced micrography, using the miniature *ghubar* (dust) script to spell out sacred names or phrases such as the basmala. These calligraphic specimens are often so close in style to those penned in Iran that their Indian provenance is suggested only by the illumination.⁹⁰ Calligraphers in India also used zoomorphic script for calligraphic pictures, many based on Iranian models. The Shi'ite poem invoking the aid of 'Ali (Nad 'Ali), for example, was copied in the shape of a hawk composed of *thuluth* letters. This example executed in gilded copper (Figure 12.9) was meant to be carried as a standard in religious

processions.⁹¹ The text begins at the hawk's beak and descends around its body and tail, ending at its breast. The poem, which had been used first on metalwares made in Herat and coins struck under the first Safavid shah Isma'il in the opening decade of the sixteenth century, was soon copied in zoomorphic shapes by famous Safavid calligraphers, such as Mir 'Ali Haravi (Figure 10.15). This copper example has been attributed to the Deccan in the late seventeenth century because of its materials and technique. It was made from a paper copy, and other, probably later, examples on paper are known.⁹²

Zoomorphic calligraphy seems to have been particularly popular in the Deccan, perhaps as early as the late sixteenth century. One of the earliest examples contains the Throne Verse (Koran 2:255) designed in the shape of a horse.⁹³ As in other examples, the text begins at the animal's head. His nose and mouth form the word *allah* (God) as though the horse were evoking the divine name through his lips. Astride the horse is a small bearded figure surrounded by plants, all drawn in a calligraphic style typical of India in the late sixteenth and seventeenth centuries. Mughal albums contain many drawings and paintings of single animals, showing the Mughals' interest in natural history. In this case, the word and picture together evoke divine omnipotence, realized as a mighty horse bearing a minuscule figure representing the human soul.

The Indian Ocean

During the late thirteenth, fourteenth, and fifteenth centuries, merchants and missionaries from India and Arabia had brought Islam east across the Indian Ocean to the Malay Peninsula, the Indonesian archipelago, and the coast of China as well as south along the eastern coast of Africa. Manuscripts were needed for proselytizing and instruction, but no examples dating before the seventeenth or eighteenth century have survived, probably because of the hot and damp climate in the region. Some may still be preserved there, but the ones that scholar-administrators and gentlemen collectors took back to Europe are better known.

The oldest document preserved from the region is a letter (Figure 12.10) written in 1024/1615 to King James I by Iskandar Muda, Sultan of Acheh (r. 1607–36).⁹⁴ The meter-long scroll is preserved in its entirety in its original yellow silk envelope. Written along the very top edge in tiny letters, but cropped in this reproduction, is the Arabic invocation *huwa allah 'ali* (He is God, the Exalted). The main text, written in a rectangular block, begins mid-way down the document. The initial three-quarters describes the sultan's majesty, his wealth, and the extent of his domains. The remainder refuses the British permission to settle and trade in Tiku and Pariaman, restricting them to Acheh.

Unlike the documents issued by the Safavids and Mughals, which are written in the hanging *nasta'liq* in black and gold, this one is penned in a legible *naskh* solely in black. The letters slant noticeably

Figure 12.10 Letter with thirty-three lines written on behalf of Sultan Iskandar Muda of Acheh to King James I of England in 1024/1615.

This is the oldest and most beautiful letter in Malay preserved in the British royal collection. Unlike contemporary documents issued by the Safavid and Mughal chanceries, this one is written in *naskh*, with a noticeable slant to the left and long tails that encircle the following letters or words. The status of the ruler is conveyed not by the spacing but by the elaborate heading and decoration.



to the left, but do not pile up at the end of the line. The long tails on final *ya*' and *nun* encircle the next phrase and add sublinear rhythm. The text is evenly spaced, but much more compact than the text in the document that Shah 'Abbas sent to Charles I (Figure 10.11), which is half the size of this one, or the text in the one that Awrangzib sent to the Raja of Mawar (Figure 12.8), which is the same size. The Malay scroll also lacks a seal impression, although other documents show that the sultans of Aceh used seals as early as 1602.⁹⁵

The feature that distinguishes the Malay scroll is its elaborate decoration. Written on gold-sprinkled paper, the text is set in a gold frame surrounded by a floral border of gold flowers highlighted with red. Like the Mughal edict (Figure 12.8), the written area is off-center, set to the left. The headpiece is particularly lavish, featuring an ogee arch with a multi-lobed intrados that occupies almost half as much space as the text itself. The field of the arch is painted in blue bedecked with cloud bands and floral scrolls in red, white, and gold. In form and decoration, the headpiece recalls those used in the opening pages of large Koran manuscripts produced in the late sixteenth century for the Safavids, notably those made at Shiraz and often exported to India.⁹⁶ British collections contain other letters, often decorated with gold, addressed to Thomas Stamford Raffles, Lieutenant-Governor of Java from 1811 to 1816 and Bengkulu from 1818 to 1824,⁹⁷ but this one issued by Iskandar Muda two centuries earlier is the finest and most elaborate.

This exchange of letters and manuscripts was the result of the trade links that developed between Europe and the East Indies. Sir Francis Drake, the first British person to visit Indonesia, arrived at Ternate in 1579, and representatives of the English East India Company followed in 1600, bringing back documents written in the Malay language in Arabic script. This script is often called *jawi*, from the word for a person or thing that comes from the island of Java or, more generally, anywhere in south-east Asia, which is known in Arabic as *bilad al-jawa*.⁹⁸ The name *jawi*, however, is used for so many different styles of script, from plain *naskh* to decorated hands, that it is of limited value.

Manuscripts from Indonesia survive from later centuries. The earliest were usually written on imported European or Chinese paper, but palm leaves were also used. Malay was the lingua franca of the archipelago, so manuscripts in Malay have been found in all the major island groups, from Sumatra in the west to the Moluccas in the east. They contain a wide range of texts, including court histories; legal, moral, theological and didactic works; and both prose and poetic literature. One example is the *Hikayat Raja Pasai*, the oldest known history written in the Malay language. Thought to have been composed in the fifteenth century, it recounts the coming of Islam in the thirteenth century to the now-vanished kingdom of Pasai on the north coast of Sumatra. The earlier of the two known copies was probably transcribed at Semarang in 1797.⁹⁹ Its detailed introduction

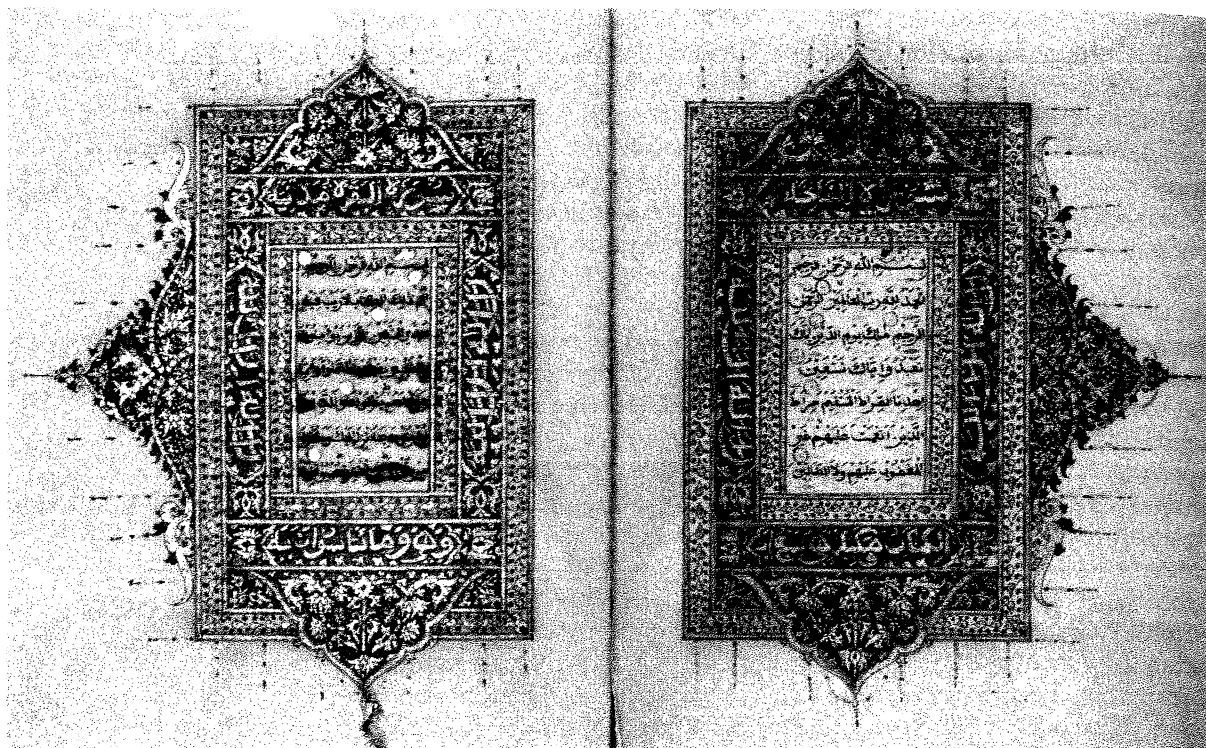


Figure 12.11 Opening pages with Suras 1–2 from a single-volume Koran manuscript.

This copy exemplifies the style of Koran manuscripts made in Indonesia in the nineteenth century that derive from Indian models. The text is written in a regular but angular *naskh* that slants to the left, a variant of the *bihari* script. Incidentals are added in a thick idiosyncratic script, surely by the illuminator, whose work includes floral and vegetal motifs typical of woodwork and textiles, particularly the splendid resist-dyed *iqats*, produced in the region.

and conclusion explaining how manuscripts were made and used in the region tell us about the role of writing and orality there: created in a society where literacy was confined to the court and religious circles and where texts were transcribed by professional calligraphers, these manuscripts were nevertheless destined for a wide audience, as the text specifies that many manuscripts were meant to be read aloud to men and women from various ethnic groups.

The style used in these court documents and manuscripts allows us to attribute a handful of Koran manuscripts to south-east Asia. The finest is a large (43 × 28 cm) copy thought to have been made for Zayn al-Din 'Abidin II (r. 1793–1808), Sultan of Terengganu in the north-west of the Malay peninsula.¹⁰⁰ Because of its extensive use of gold, a pigment generally reserved for royalty there, it has been dubbed 'the Gold Edition.' More typical are smaller nineteenth-century copies transcribed on European watermarked paper (Figure 12.11).¹⁰¹ Like manuscripts made in India, the Indonesian ones have illuminated pages at the beginning, middle, and end.¹⁰² The decoration too is similar to that found in manuscripts made in India, but includes the curvilinear forms and swirling leaves typical of the arts of Indonesia. The all-over decoration with arabesque scrolls, sometimes created in reserve, for example, recalls the famous *iqat* reserve-dyed textiles from the region. Many of the vegetal motifs are also found in Indonesian woodwork. The pointed scrolls along the sides,

for example, resemble roof brackets. Also notable are the lobed roundels that project not just at the sides but also below the text.

The text in these Koran manuscripts from south-east Asia is written in a regular and even *naskh* like that used in other dated documents and manuscripts from the region. It shares many features with the *bihari* style developed in the subcontinent (Figure 9.8). Letters are posed on a flat baseline, but slant markedly to the left and are very angular in basic construction, despite their slightly rounded edges. The initial *ba*' in the basmala is heightened so that it is as tall as *alif* or *lam*. In some cases, the gall-based black ink has corroded the pages, particularly in copies that have been preserved in the hot and humid climate there.

In these Koran manuscripts, the *naskh* text script is juxtaposed to an idiosyncratic display script, used on this opening double page for the *sura* headings above and below the written area with the name, place of revelation, and number of verses, and for the opening part of the profession of faith (*la ila ila allah*; there is no god but God) repeated along its sides (Figure 12.11a). The script is quite ungainly: *lam-alif* here is written like a boat. Except for the standard content, the text is virtually unreadable. In a copy in the Khalili Collection, the *ha*' of *muhammad* is distorted to a large isocles triangle. Such extreme stylization suggests a confined school.



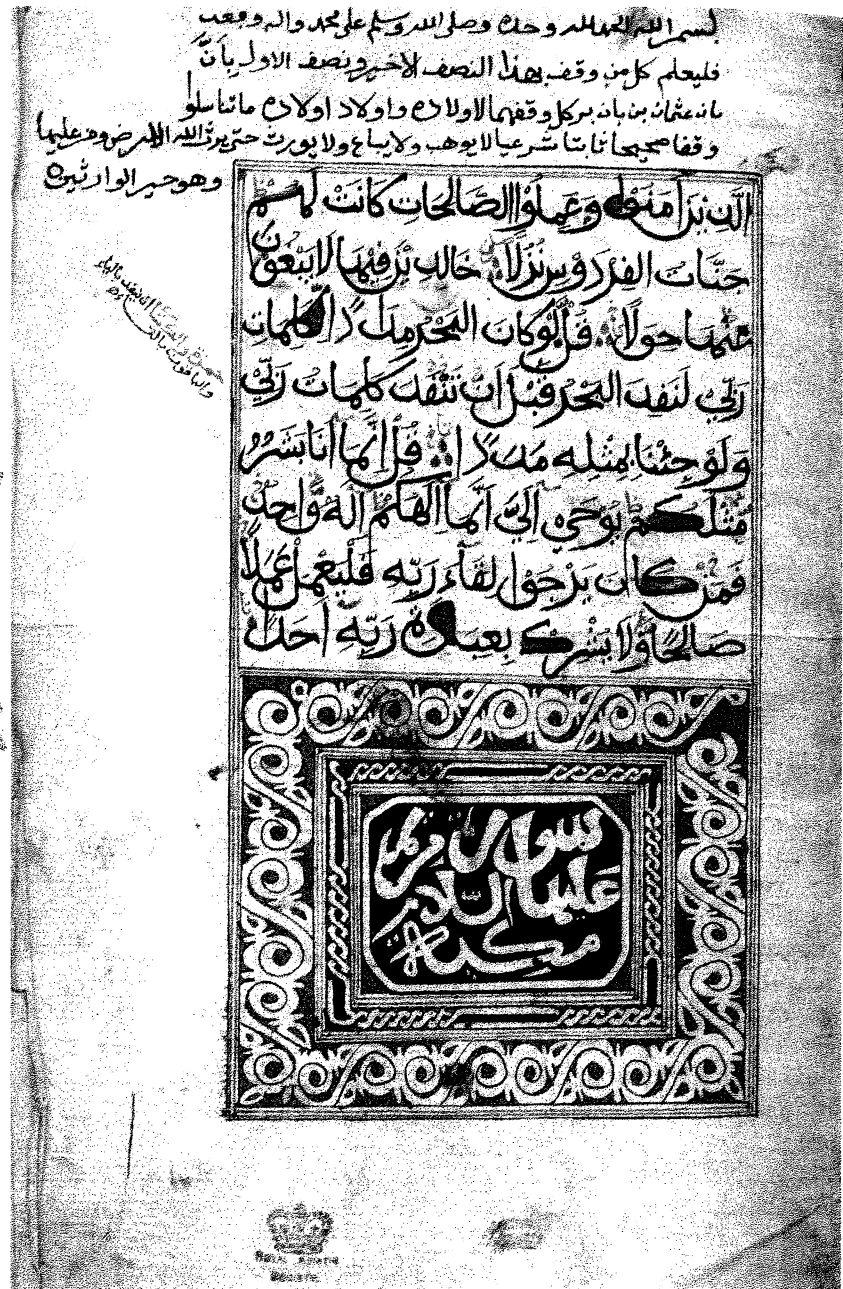
Figure 12.11a

Muslim traders also carried Islam across the Indian ocean to the east coast of Africa. Whereas West Africa had been Islamized from the Maghrib and the Nilotic Sudan from Egypt, the East African coast was integrated into the Indian Ocean trade. Manuscripts produced there confirm the cultural origins of settlers, as some, such as a single-volume copy transcribed by Hajj Sa'd ibn Adish(?) 'Umar Din in Shawwal 1162/September–October 1749, are written in a script resembling the *bihari* used in India since the late fourteenth century.¹⁰³ The text follows the Kufan reading, with *sura* headings noting not only the number of words and letters as well as verses, but also differences from the readings of Mecca and Medina. The beginning and end of the manuscript contain several short complementary texts, including a compendium of Koranic information about the virtues and techniques of reading and writing the text, canonical and alternative readings, and prayers. Such a manuscript might well have been used in teaching and proselytism.

Local calligraphic styles developed in east Africa. One of the most important centers for artistic production was Siyu, a Swahili town on the island of Pate in the Lamu archipelago off the coast of Kenya. From c. 1725 to 1865, it was a center of Islamic learning and craft production in textiles, wood, leather, metal, and especially manuscripts.¹⁰⁴ About half the surviving manuscripts made there are copies of the Koran; others are manuals of religion, law, medicine, astrology, grammar and the like. One of the best documented is the second volume of a Koran codex donated by Forster Fitzgerald Arbuthnot to the Royal Asiatic Society in London in 1900 (Figure 12.12).¹⁰⁵

Figure 12.12 Page with Suras 18:107–19 from the second volume of a Koran manuscript with fifteen lines to the page transcribed by al-Khatib ibn 'Abd al-Rahman ibn Khatib ibn 'Ali al-Siyawi, probably in the mid-eighteenth century and rebound in two volumes, c. 1800.

The scribe's *nisba* connects him to the settlement of Siyu on the island of Pate, a center of learning and crafts from 1725 to 1865. The endpapers in the volume have watermarks dating the paper to the late eighteenth century, when the manuscript was apparently rebound so that it could be placed in niches on either sides of a doorway. The script resembles *maghribi*, but with regular pointing and uniform strokes.



Scraps of paper used as bookmarks between the volume's 188 folios say that it was 'got at Witu and belonged to the sultan of Witu who was deposed,' meaning that it was taken as plunder in 1893 when the British sacked this small state on the east African mainland and deposed the Nabhani rulers there. Although undated, the manuscript was already old when Witu was taken, for the endpapers have late

eighteenth-century watermarks. They were probably added when the manuscript was rebound in two volumes c. 1800 so that they could be placed in niches flanking a doorway, a common tradition in the region.

On the basis of paper, colophon, and script, the manuscript itself can be dated to the mid-eighteenth century. The text is transcribed on strong grayish paper of European origin with a watermark of *tre lune*. This paper was produced from the seventeenth to the nineteenth century by the firm of Andrea Galvani at several towns in the Veneto, notably Pordenone, for export to the Ottoman empire, Egypt, and east Africa.¹⁰⁶ The paper was transported as far as sub-Saharan Africa, either by pilgrims returning from Mecca or by caravans crossing the Sahara from Libya (see below, p. 574). The attribution to the eighteenth century is supported by the name of the calligrapher, who signs himself at Khatib ibn 'Abd al-Rahman ibn Khatib ibn 'Ali al-Siyawi. Like the calligrapher Hajj Sa'd, who copied the Koran manuscript of 1162/1749, the calligrapher who transcribed this manuscript was quite learned: he came from a family of calligraphers, and Khatib, his given name and that of his grandfather, means preacher or reader of prayers. His education is also evident from the fifteen or so commentaries and variant readings he cites in the margins. His *nisba* al-Siyawi connects him to the small settlement of Siyu, and the manuscript was likely copied there and removed from the island in the early 1860s when the ruling Nabhani dynasty was expelled to Witu.

The text in this Koran manuscript is written in black ink, with diacriticals in bright red ink probably produced from logwood dye, a local specialty made from the wood of the mangrove tree. The hand, more elegant than that of the 1162/1749 manuscript, is large and clear, with some features characteristic of the *maghribi* style, such as the loopy tails of the letters, the big *dal*, and the flat *sad*. The pointing, however, follows regular practice (*fa'* with one and *qaf* with two strokes above the letter), and the strokes are a uniform thickness and not posed on a rigid baseline. Notable are the unauthorized connections, as in the words *bi-ibada* in the bottom line (Figure 12.12a), in which *alif* is connected to *dal*, which in turn is connected to *dal* with a flourish for *ta' marbuta*.

The bottom half of this page is occupied by the heading for Surat Maryam (19). It marks the division of the text into halves, and a similar large heading for Sura 36 (Ya Sin) on folio 84b marks the division into quarters. The text of the headings is unusual. It gives the name of the *sura* and the place of revelation (here, Mecca; in the other one, Medina), but no verse counts. Instead, the space is occupied by blessings, here on Maryam. The text of the heading, like the decoration around it, is created in reserve. Notable is the knot-shape used for the final *ta' marbuta* in *makkiyya* (Figure 12.12b), a feature characteristic of India and found in contemporary Kashmiri manuscripts (Figure 12.5a). The only two colors used in this copy are red and black, though the dated copy includes a muddy yellow and olive



Figure 12.12a



Figure 12.12b

green as well, using the same reserve technique. Motifs include a cable binding and scroll, and the twining rope ornament can be found in wood and cut-plaster in the region. On the basis of style, other less well-published manuscripts can be attributed to the same milieu,¹⁰⁷ attesting to a flourishing, but still relatively unknown, style of manuscript production in east Africa in the eighteenth and nineteenth centuries.

The Maghrib

Following the expulsion of the Muslims from Spain in 1492 and the opening of new trade routes across the Atlantic and around Africa, the Maghrib became a frontier, somewhat isolated by developments elsewhere in the Islamic lands. This situation pertained in many of the arts, including calligraphy and book production. Calligraphers continued to use the same script found earlier in the region, with loopy descenders, unusual pointing of *fa'* and *qaf*, club foot on *alif*, *sad* written without bump, flat diacritical marks, and so on. Repetition only led to exaggeration.

The stylization of the *maghribi* style can be seen most readily in Koran manuscripts, themselves the most conservative type of text. Virtually all were copied on paper, which by this period had become standard even in the Maghrib. Much of it was imported from Europe and bears watermarks with animals, flowers, crowns, Western initials, and the like. Shape is consistent: nearly all are rectangular (portrait), as the earlier square format seems to have been abandoned. They vary widely, however, in size. Many measure approximately 20 × 15 cm, but some are bigger.¹⁰⁸ Some were written in a large script, with only five lines per page, but most were written in a smaller script, with up to twenty-two lines per page. Some contain the entire text in a single volume. Other manuscripts were divided into sections, with one or two sections (*juz'*) in a single volume. Still others were divided into two or four parts. Some contain only extracts of the full text, with translations and paraphrases in Spanish, the vernacular language of immigrants from the Iberian peninsula. At least one is accompanied by a divination text (*falnama*) in Turkish, the official language of the Ottomans who ruled north Africa through a system of provincial governorates supported largely by piracy.¹⁰⁹

A typical example from the high end of the spectrum (Figure 12.13) is the copy made for the Sharifan sultan 'Abdallah ibn Muhammad in 975/1568.¹¹⁰ It shows many features of manuscripts made earlier in the region. Some pages are white, but others are dyed ocher or rose. Colored paper, particularly rose or red, had long been used in the region for both documents and manuscripts (Figures 9.11 and 9.12). The four hundred folios of text in the Sharifan Koran codex are transcribed in black ink, with vowels in red and other orthographic signs in blue and orange. Chapter headings are written in gold kufic, with blue used to fill the interstices. Large marginal ornaments in blue and



Figure 12.13 Page with Sura 48:1-7 from a single-volume Koran manuscript with seventeen lines per page transcribed in 975/1568 for the Sharifan sultan 'Abdallah ibn Muhammad.

This royal manuscript shows how traditional *maghribi* scribes became in later times, for it repeats many of the features seen earlier. Some of the paper pages are dyed ochre or pink, and the script is a stylized version of the distinct *maghribi* style that had developed in the region since the tenth century. The gold and blue decoration is also characteristic, but will become multi-colored in later centuries.

gold extend into the margins: palmettes mark chapter titles; tear shapes, every five verses; and roundels, every ten verses. The richly illuminated pages at the beginning and end bear elaborate knotted decoration in gold similar to the type already used in the Koran manuscript copied by the Ibn Ghattus family at Valencia in the late twelfth century.¹¹¹

The anonymous calligrapher of the Sharifan Koran used the standard form of *maghribi* script with swooping tails, flat diacritical marks, unusual pointing for *fa'* and *qaf*, and typical letter shapes such as *alif* with a club foot, flat *sad*, *kaf* with a diagonal bar, and *dal* like pursed lips. Letters are set on a flat baseline, and the tails regularly descend to the line below. The strokes are exaggerated and attenuated. For example, the anonymous calligrapher often extended the horizontal connector between letters to allow space for the descending

tails or to fill out the line. Thus, in the last word in the second line of text, *liyaghfira*, he elongated the space between *ghayn* and *fa'* (pointed with one dot below the letter, the standard form used in the Maghrib) to allow for the descending tail of *nun* from *al-rahman* and extended the space between *fa'* and *ra'* so that the tail of *ra'* projects into the left margin. He arranged the swooping tails to form patterns, most visible in the margins. For example, the tails of *mim* and *ra'* in the first three lines of text form a tier, the upright *alifs* of lines four and five form parallel bars, and the bowls of *nun* in lines eight and nine form parallel curves. The tails of *mim*, *ra'*, and *waw* create similar patterns in the bottom margin. The overall impression is of sobriety, balance, and control – even rigidity.

Many features found in this sixteenth-century Koran manuscript can also be found in other copies transcribed during the next few centuries in the region, but become increasingly exaggerated. A codex made in 1142/1729–30 for another prince of the Sharifan line shows the same scripts and illumination but more colorful decoration, with bright red and green added to the standard blue and gold, and more complex strapwork interlacing.¹¹² The text is transcribed in a thinner version of the typical *maghribi* hand, with even more extended connectors. Chapter headings are added in both knotted kufic and *thuluth*. The manuscript must have been given to one of the Beys of Egypt, for it bears his seal and an endowment notice at the end stating that Muhammad Bey endowed it to his mosque. It represents the finest workmanship from the area.

Maghribi script was used for most texts transcribed in the region. After the Koran, the most popular was al-Jazuli's *Dala'il al-Khayrat* (Guidelines to the Blessings), a collection of prayers for the Prophet Muhammad, including a description of his tomb and his names. The author, Abu 'Abdallah Muhammad ibn Sulayman, known colloquially in Morocco as Ben Sliman, belonged to the Berber tribe of Jazula in Moroccan Sus, whence his sobriquet al-Jazuli.¹¹³ Al-Jazuli's book of prayers was widely circulated. One of the earliest copies, datable to the sixteenth century, was acquired in 1960 in the bazaars of Kabul.¹¹⁴ Its distinctive *maghribi* script and square format shows that it was made in North Africa, but a pilgrim seems to have taken the manuscript to India, where it was rebound with paper inscribed in Devanagari, the script used for transcribing Hindi, Nepali, and Marathi.

Al-Jazuli's text was copied repeatedly in later centuries, everywhere from the Maghrib to south-east Asia.¹¹⁵ Some manuscripts contain detailed instructions telling the reader how to handle the codex, which was considered almost as holy as a copy of the Koran. In addition to its devotional character, it served as an inspiration to freedom fighters, used, for example, in the nineteenth century by Muslims fighting the Dutch in Aceh. Although a lithographed edition of the text was published in Cairo in 1840, fine handwritten copies continued to be made until the twentieth century. One copied

at Fez in 1311/1893–4 shows many features found in *maghribi* Koran manuscripts.¹¹⁶ It continues the small squarish format, measuring 18 × 16 cm, and the same palette, with the text on 350 folios written in black ink, important words added in red, and colorful illumination in bright yellow, red, blue, and green.

Like most copies of al-Jazuli's text, this manuscript is illustrated with several representations of places or objects connected with the Prophet. Jan Just Witkam showed that the earliest manuscripts contain a single-page image schematically depicting the tomb (*rawda*) of the Prophet, containing his grave and those of the early caliphs, in the Mosque at Medina. This format was soon expanded, as in the sixteenth-century copy in Berlin, into a double-page image showing the Prophet's minbar along with the graves, with both scenes set in framed niches that resemble the illuminated pages from contemporary Koran manuscripts.¹¹⁷ Manuscripts and editions of al-Jazuli's text made later in the Maghrib adhere to this traditional set of illustrations showing the Prophet's grave and his minbar, but those made in the Ottoman lands and the east from the late eighteenth century contain a different set of illustrations juxtaposing the Mosque of Medina and the Ka'ba in Mecca. The setting of the images also changed: the small niches presented frontally were replaced by overall views of the building, seen first from a bird's eye and later in perspective. This change probably took place because of the conservative Wahhabi aversion to the veneration of graves. Such a view did not penetrate to the Maghrib, a fact that once again points to the isolation of the region, even in its tradition of book production.

Sometimes calligraphers also embellished al-Jazuli's devotional text with monumental calligraphy. This is the case with a manuscript transcribed by Muhammad ibn Abi'l-Qasim al-Qandusi al-Fasi (d. 1861–2).¹¹⁸ Typically, the calligrapher of this 326-folio manuscript combined al-Jazuli's text with another short devotional work containing religious aphorisms. The text of the *Dala'il al-Khayrat* occupies most of the manuscript (folios 24–326) and is embellished with many illuminations and four miniatures showing sacred places connected to the Prophet, including his sandals. In addition, al-Qandusi added several folios at the beginning and in the middle of al-Jazuli's text (folios 38–41) with monumental writing in black ink. This double page (Figure 12.14) contains the basmala and the profession of faith, written in black ink. The letters follow the same forms used for centuries, but show the extreme stylization of the *maghribi* style used for transcribing the Koran and other pious texts. On the right page, for example, the curving tail of *mim* extends into the margin as in the earlier Koran manuscript, but now occupies the entire height of the page. It is mirrored in the smaller *mim* at the end of *al-rahim*, the last word of the basmala. Almost half the page is occupied by the word *allah* (God), whose size underscores its semantic importance. The calligraphy on the left page repeats the same shapes, but is denser and more enveloping. In the word *rasul* in the bottom line, for



Figure 12.14 Double page with the basmala and the profession of faith inserted in the middle of a copy of al-Jazuli's *Dala'il al-Khayrat* transcribed by Muhammad ibn Abu'l-Qasim al-Qandusi al-Fasi and finished on 14 Ramadan 1244/28 March 1829.

After the Koran, al-Jazuli's book of prayers for the Prophet was the most popular text in later times. Although the work was published in lithograph in Cairo in 1840, fine handwritten copies continued to be made, often incorporating other devotional texts. This copy by al-Qandusi, the most inventive calligrapher working in the Maghrib in the nineteenth century, is one of the most dramatic. Al-Qandusi played with large, fat versions of *maghribi* script, which often recall the abstracted forms of modern art.

example, the *ra'* wraps around the *sin* and the final *lam* wraps around the word *allah*. Initial *mim* of *muhammad* floats like a streamer above the second letter, *ha'*.

Al-Qandusi used a particularly wide pen and contrasted the thick stroke with a hair-thin line, as in the extension of final *ha'* in the words *ilah* and *allah* and the serpentine tail of *waw* in *rasul* that resembles a curlicue. The same thin line is used for the flat vocalization and dagger *alif*. Diacriticals are marked by fat round dots, with stops (*sukun*) indicated by fat rings. On other pages with prayers, aphorisms, and homages to the Prophet's lineage, al-Qandusi added color and exaggerated the flourishes.¹¹⁹ He also exploited other techniques, for at least

one page in this manuscript contains the word *allah* embroidered on leather with silk thread.¹²⁰

Al-Qandusi often played with such a stylized script. He used a similar thick script for a twelve-volume copy of the Koran completed in 1266/1849–50.¹²¹ Each volume contains some 250 large (43 × 28 cm) folios; each page has nine lines of thick *maghribi* script. Chapter headings are written in gold *thuluth* with blue. The opening pages are decorated with elaborate illumination of the type found in imperial edicts, as on the page with the beginning of Chapter 19, or Surat Maryam.¹²² The green and gold illumination has been interpreted as evoking the gardens of Paradise, and in this sense, al-Qandusi's work parallels the pictorial writing that developed in other parts of the Islamic lands, in which the word was meant to be read as both text and image.

Al-Qandusi was not the only inventive calligrapher of his time. Other nineteenth-century calligraphers in the Maghrib developed these trends in more traditional ways, as in a copy of the Koran transcribed by Ahmad Malush al-Hadrami in 1886.¹²³ Al-Qandusi's work, nevertheless, is bolder and perhaps more appealing to eyes accustomed to abstract art. It exemplifies the creativity which was possible even when calligraphers were working within a defined tradition and anticipates the three-dimensional word sculptures developed by calligraphers and artists in the twentieth century (see Chapter 13).

Sub-Saharan Africa

Islam arrived in sub-Saharan Africa, as it had in south-east Asia, not by conquest but diffused through the emigration of merchants, teachers, and settlers. Through these trading networks, Islam was extended first to the Sahel, the grassy steppe that borders the Sahara, and then to the Sudan, the broad savannah that lies to the south. Muslim kingdoms were established in various regions of the western and central Sudan by the ninth or tenth century, but manuscripts survive only from several centuries later. One of the earliest datable examples (Figure 12.15) is a Koran manuscript examined by A. D. H. Bivar in Maiduguri in Nigeria.¹²⁴ It has interlinear glosses in a form of Kanembu, a dialect of Kanuri still spoken by parts of the Bornu population around Lake Chad. The margins of the Bornu manuscript are filled with several commentaries, including a lengthy one by al-Qurtubi, whose colophon says it was completed on Sunday, 1 Jumada II 1080/27 October 1669. The colophon also gives the genealogy of the calligrapher, whose family had lived in Bornu as early as the last quarter of the fifteenth century. Bivar concluded that this manuscript and three other copies of the Koran with Kanembu glosses that he had seen in northern Nigeria were produced in Birni N'gazargamu, the former capital of the Bornu empire that had been destroyed by the local Fulanis in 1808. These manuscripts therefore show that the tradition of Koran manuscripts with interlinear translation dates back

Figure 12.15 Opening page with Sura 1 from a loose-leaf Koran manuscript with eight lines to the page.

The space between the lines of Koranic text is filled with glosses written in Kanembu, a dialect of Kanuri still spoken by parts of the Bornu population around Lake Chad. The margins are filled with commentaries, including a long one by al-Qurtubi dated 1 Jumada II 1080/27 October 1669 that gives a *terminus ad quem* for the manuscript and shows that bilingual Koran manuscripts have been produced in the region for centuries.



at least three and a half centuries in the region, far longer than had been imagined, though not as far back as it does in the eastern Islamic lands.¹²⁵

The Koran manuscript from Bornu is transcribed on brittle paper that has frayed at the edges and was probably imported to the region. Closer examination of the paper might put to rest suspicions by some that this manuscript is actually a copy of an earlier one whose commentary was transcribed in 1080/1669. Each regular page in this large (32 × 23 cm) manuscript has eight widely spaced lines of text written in a hand that shares many features with the classic *maghribi* style. Letters are posed on a flat baseline and share the typical *maghribi*

pointing and shape, with swooping – though shorter – tails, horizontal diacritical marks, unusual pointing for *fa'* and *qaf*, and typical letter shapes such as *alif* often with a club foot, flat *sad*, *kaf* with a diagonal bar, and *dal* like pursed lips. Verses are marked with a pyramid of three balls, another feature typical of *maghribi* Koran manuscripts. Decoration is more distinctive, with a row of simple geometric shapes in earth colors used to fill the bottom of folio 1, space that would have been filled on regular pages with the eighth line of text. Calligraphy, especially in Koran manuscripts, is therefore conservative, and artists felt freer to introduce local features for illumination.

The origin of this script is controversial. Bivar designated it *ʿifriqi*, meaning from ʿIfriqiyya, the Arabic name for the region comprising modern-day Tunisia and western Algeria.¹²⁶ As evidence, he cited the statement by the great North African historian Ibn Khaldun, writing c. 1375, who says that Muslim calligraphers fleeing from Spain introduced a more delicate and flowing hand which replaced the styles that had been used earlier in North Africa, notably at Kairouan and Mahdiyya.¹²⁷ The old scripts, Ibn Khaldun continues, were preserved only in a few towns in the Jarid, a word literally meaning palms and a term designating the region of south-western Tunisia in the Sahara. Bivar argued that the old style of script was also preserved south of the Sahara in the Sahel, brought there by the Almoravids during their conquests of the Upper Niger region. He distinguished this heavy angular *ʿifriqi* script from a thinner and more flexible hand that he called *andalusi*.

Though ingenious, Bivar's arguments are ultimately unsatisfactory for a variety of reasons, ranging from historical to paleographic.¹²⁸ The Almoravids, who introduced Maliki Islam and many other features to the Sahel, never controlled ʿIfriqiyya, the presumed home of the *ʿifriqi* script, although they might have imported manuscripts from there.¹²⁹ Furthermore, the style used in eleventh-century Tunisia was different, as shown by a legal document copied in 406/1015, almost certainly in Kairouan.¹³⁰ The script used in the Koran manuscripts from Bornu, by contrast, shares many, many characteristics with *maghribi*. *Sad*, for example, is written without a final tooth, as in the *maghribi* style, but not in the Maliki legal document from Tunisia. Medial *ha'* also follows the *maghribi* rather than the Tunisian style. Bivar's attempt to distinguish this hand from a thinner variant is also based on faulty reasoning: both thicker and thinner styles of script had been used throughout the Maghrib for centuries, and efforts to distinguish the two with geographical names such as *fasi* (from Fez) and *andalusi* are unsuccessful (see Chapter 6).¹³¹ Rather, the script used in these Koran manuscripts from Bornu seems to be an offshoot of the more typical *maghribi* style.

Koran manuscripts with distinctive format, script, and decoration continued to be produced in the region in later centuries.¹³² A few are dated,¹³³ and most can be attributed to the nineteenth century. The

Figure 12.16 Page with Suras 37:168–38:1 from a loose-leaf Koran manuscript with 16–20 lines per page.

This Koran manuscript can be attributed to the Sudan in the mid-nineteenth century because of its materials and style. Preserved in a leather wallet inside a leather satchel, the looseleaf pages are transcribed on watermarked paper made in Pordenone in the bold and flowing script typical of the region. Pages decorated in earth tones divided the text approximately into fourths, and other ornaments comprise circles reserved against the paper.



best documented are two in the University of Leeds, one dated 1299/1881 that was acquired after the defeat of the Mahdi in the southern (or Nilotic) Sudan, and the other datable to the mid-nineteenth century (Figure 12.16).¹³⁴ These manuscripts typically comprise looseleaf pages held in a tooled leather wallet that is not attached to the textblock, but rather wrapped around it, with the flap folded on the outside and held in place by a cowrie shell and leather thong wrapped around the binding. The wallet, in turn, is held in a leather satchel, said to preserve the manuscript from impurity and protect it from the evil eye, but also used to enhance portability. Made of goatskin, the satchel usually has a shoulder strap and a flap secured by plaited leather thongs.¹³⁵

The Koran manuscripts from nineteenth-century West Africa are relatively small. The typical sheet of paper measures about 22–3 by 16–17 cm, though some manuscripts are made from pages half that size or smaller. The sheets are watermarked with the *tre lune* and were made at the Galvani mill in Pordenone. They have the same type of paper used in Koran manuscripts from east Africa (Figure 12.12), but these sheets were probably not transported west from Egypt, but south from Tripoli across the Sahara.

Generally portrait in shape, these manuscripts are transcribed with a varying number of lines per page. Typically, each has fifteen lines of text in an unframed block, but the number can range from thirteen to twenty, sometimes within the same manuscript. There was clearly no scribal tradition or school. Marginal ornaments mark places of prostration (*sajda*) and divisions into sixtieths (*hizb*), themselves divided into eighths as indicated by letters written in the marginal ornaments (*tha'* for *thumn*, one-eighth; *ba'* for *rub'*, one-quarter; *nun* for *nisf*, one-half). Usually these manuscripts also have four decorative pages dividing the text into quarters.

The illumination too is distinctive, with a variety of geometric designs done in vivid earth tones of yellow, brown, and red. The rectangular panels often contain strapwork patterns, some divided into horizontal bands whose layout resembles Berber flat-woven rugs from southern Morocco, for textiles were probably the source for many of these designs.¹³⁶ Marginal ornaments are sometimes geometric devices, but more often circles with reserve decoration. Vocalization is marked in red, and verses are separated by pyramids of yellow dots. As in the *maghribi* tradition, *hamza al-qat'* is marked with a large yellow dot.

The script continues the type used earlier in the region and throughout the Maghrib.¹³⁷ Strokes have a uniform thickness, written with a pen whose nib becomes increasingly blunt over the pages. Pens must have been expensive, probably imported. The strokes are similar in height, with *fa'/qaf* almost as tall as *alif/lam*. The letters show the features of *maghribi* script such as the club-footed *alif*, toothless *sad*, *kaf* with a diagonal stroke, *dal* like pursed lips, etc. Initial *ba'* in the basmala continues to be heightened. Medial *ha'* is often written as two circles on a flat baseline, like a bow. Altogether these manuscripts from West Africa in the nineteenth century present a distinctive look and exemplify a strong local tradition ultimately descended from *maghribi* styles.

Notes

1. Babur's memoirs, sometimes compared in importance to St Augustine's *Confessions* and other masterpieces of world literature and the first, and until recent times, the only true autobiography in all of Islamic literature, is readily available in a fine illustrated edition: Wheeler M. Thackston, trans., ed. and annot., *The Baburnama: Memoirs of Babur, Prince and Emperor* (Washington, DC; New York and Oxford, 1996).
2. The amount is given in an inventory compiled in 1605 and mentioned in John Seyller, 'The Inspection and Valuation of Manuscripts in the Imperial Mughal Library,' *Artibus Asiae* 57, no. 3/4 (1997): 243 and n. 1. It is important to remember that all of these manuscripts were handwritten. Even today a library of 24,000 printed books would be significant. The Mughals used a tri-metal system with various types of gold mohurs, silver rupees, and copper *dams*. According to Abu'l-Fadl

- (*The Ā'in-i Akbarī*, trans. H. Blochmann, et al. [New Delhi, 1989], 33), the ratio between them varied, but the pure mohur, before devaluation, was equivalent to ten rupees or four hundred *dams*.
3. The court chronicler Abu'l-Fadl describes its contents in *A'in-i Akbari*, 109–12.
 4. John Seyller has extensively studied these matters of Mughal manuscripts and their codicology: see, for example, 'Scribal Notes on Mughal Manuscript Illustrations,' *Artibus Asiae* 48 (1987): 247–77; 'Inspection,' 'A Mughal Code of Connoisseurship,' *Muqarnas* 17 (2000): 177–202.
 5. The best introduction to the subject is Jeremiah P. Losty, *The Art of the Book in India* (London, 1982), Chapter 3.
 6. Recent exceptions include the articles by Chahryar Adle, 'New Data on the Dawn of Mughal Painting and Calligraphy,' in *The Making of Indo-Persian Culture: Indian and French Studies*, ed. Muzaffar Alam, Françoise 'Nalini' Delvoye, and Marc Gaborieau (New Delhi, 2000), 167–222; Francis Richard, 'Some Sixteenth-Century Deccani Persian Manuscripts in the Bibliothèque Nationale de France,' in *The Making of Indo-Persian Culture: Indian and French Studies*, ed. Muzaffar Alam, Françoise 'Nalini' Delvoye, and Marc Gaborieau (New Delhi, 2000), 239–49. For Mughal Koran manuscripts, see most recently Manijeh Bayani, Anna Contadini, and Tim Stanley, *The Decorated Word: Qur'ans of the 17th to 19th Centuries*, The Nasser D. Khalili Collection of Islamic Art (London, 1999), 171–7. There, Manijeh Bayani called attention to various other primary sources that illuminate the history of calligraphy in India. They include *Mir'at al-'alam* (Mirror of the World), a general history to 1667 attributed to Muhammad Bakhtavar Khan (d. 1685) but actually written by Muhammad Baqa Sarahanpuri that contains a series of biographical entries on calligraphers from the time of Ibn Muqla down to the Mughal period. Specialized works on the subject appeared at a comparatively late date. *Tadhkira-yi khushnivisan* (Memorial of the Calligraphers) by Ghulam Muhammad Dihlavi, known as Haftqalami (d. 1823), gives biographies of calligraphers down to the reign of Akbar II (1806–37).
 7. On this point, see the comments in Bayani, Contadini, and Stanley, *The Decorated Word*, 171–99; Anna Contadini, 'Travelling Pattern: A Qur'anic Illumination and its Secular Source,' in *Safavid Art and Architecture*, ed. Sheila R. Canby (London, 2002), 58–66.
 8. Abu'l-Fadl 'Allami, *A'in-i Akbari*, 102–15.
 9. Seyller, 'Mughal Code.'
 10. The detached page is published and discussed in Seyller, 'Mughal Code,' 177–8 and fig. 1.
 11. Seyller, 'Inspection,' 270–2.
 12. John Seyller, *Pearls of the Parrot of India: The Walters Art Museum 'Khamsa' of Amīr Khusraw of Delhi* (Baltimore, MD, 2001), 32, established painters' salaries at twenty rupees.
 13. For the European examples, see Jonathan J. G. Alexander, *Medieval Illuminators and their Methods of Work* (New Haven and London, 1992), 26–38.
 14. Free Library of Philadelphia, ms. 62; Seyller, 'Inspection,' 273 and 283. He also noted, by way of comparison, that a large copy of the *Razmnama* made for Akbar between 1582 and 1586 cost 4,024 rupees: 325 rupees (about 8 per cent) for the calligrapher and 3,602 rupees (about 90 per cent) for the 165 large paintings, or about 21 rupees per painting.

15. Most of the manuscript is now in the British Library (Or. 12208). Once in the collection of Charles William Dyson Perrins (1864–1958), who used his family fortune derived from Lea & Perrins' Worstershire Sauce to amass one of the most valuable private libraries in England, it is sometimes called the Dyson Perrins Nizami. It is incomplete, and some pages are now in the Walters Art Gallery, Baltimore. On the manuscript, see Losty, *The Art of the Book in India*, no. 65; J. M. Rogers, *Mughal Miniatures* (New York, 1993), no. 30; Barbara Brend, *The Emperor Akbar's 'Khamisa' of Nizāmi* (London, 1995). The colophon mentions that the manuscript was transcribed for Akbar's library (*khizanat al-kutub wa kitabkhana-yi 'ali*). Seal impressions and inscriptions on the title page have been defaced, but the quality of the materials and execution confirm that this was a product of the royal scriptorium.
16. Seyller, *Pearls of the Parrot*, 39–40, discusses the calligrapher's output in this manuscript. Sixty-two folios, mainly in the first third of the manuscript, have tiny numbers at the edge of the text area or the central intercolumnar space; after this point, the folios are marked with red dots that fulfill the same function. The numbers clearly refer to daily output, rather than daily readings or some other features, because they are consecutive to 30 or 31 and in the *Khusraw and Shirin* section lead up to the date of the 20th Mihr mentioned in the colophon to that poem.
17. See Chapter 10, p. 434, and note 72. Perhaps both calligraphers, like their famous predecessor Sultan 'Ali Mashhadi, who daily wrote thirty lines for Mir 'Ali Shir and twenty for Sultan Husayn, were working on two projects concurrently.
18. The note is published and discussed in Seyller, 'Inspection,' 277–8 and fig. 2, and mentioned in Seyller, *Pearls of the Parrot*, 39.
19. Seyller, 'Inspection,' 278.
20. The sources about the cost of the Taj Mahal are given in Wayne E. Begley and Z. A. Desai, *Taj Mahal: The Illumined Tomb: An Anthology of Mughal and European Documentary Sources* (Cambridge, MA, 1989), 137–8.
21. Such views clearly derived from the Safavid theory of the two pens (*qalam*) articulated already in the middle of the sixteenth century; see Chapter 10 and note 7.
22. The painting is dated in the inscription in the dado cartouches. See Seyller, 'Scribal Notes,' 247, n. 6. Seyller's publication of the note, which confirms Losty's attribution of the picture as a later double portrait of the painter Dawlat and the calligrapher 'Abd al-Rahim, confirms the necessity of reading the inscriptions on paintings.
23. London, Royal Asiatic Society, Pers. ms. 258; Losty, *The Art of the Book in India*, no. 58. The painting is reproduced in color in Anthony Welch, *Calligraphy in the Arts of the Muslim World* (Austin, TX, 1979), no. 76 and p. 12, and in black and white in Seyller, *Pearls of the Parrot*, fig. 3. The colophon page in another contemporary manuscript, a copy of the *Divan* of Amir Hasan Dihlavi (Walters Art Gallery W.650; Milo Cleveland Beach, *The Grand Mogul: Imperial Painting in India, 1600–1660* [Williamstown, MA, 1978], no. 1; Losty, *The Art of the Book in India*, no. 72) made for Prince Salim in 1011/1602–3, also contains a portrait of the calligrapher Mir 'Abdallah known as Mushkin Qalam (musky pen) accompanied by a paper burnisher (reproduced in Beach, *Grand Mogul*, p. 39). The article by Ashok Kumar Das, 'Calligraphers and Painters in Early Mughal Painting,' in *Chhavi-2*, ed. Anand

- Khrishna (Benares, 1981), 92–7, lists manuscripts with colophon portraits. The Gulshan album also includes a marginal painting by Dawlat showing a ruler, presumably Jahangir, gazing at a book accompanied by portraits of five famous Mughal painters; first published by Yedda Godard, 'Les Marges du Murakka' Gulshan,' *Āthār-e Īrān* 1 (1936): 11–35. I thank John Seyller for bringing these, and other matters Mughal, to my attention.
24. For an overview of Mughal albums, see Jane Turner (ed.), *The Dictionary of Art* (London, 1996), 'Album. 2. Indian subcontinent,' Beach, *Grand Mogul*. Albums were already made for Akbar and continued to be made for his successors. Only two early examples survive in some semblance of their original form. One is the Gulshan Album in Tehran (Gulistan Palace Library, no. 1645), which bears dates between 1599 and 1608. It is currently being prepared for publication by a team of scholars; meanwhile, see Mohammad-Hasan Semsar, *Golestan Palace Library: A Portfolio of Miniature Paintings and Calligraphy* (Tehran, 2000), 283–93. The second and slightly later one (with dates 1608–18) is in the Staatsbibliothek in Berlin (no. A.117); see Ernst Kühnel and Hermann Goetz, *Indian Book Painting from Jahangir's Album in the State Library, Berlin* (London, 1926). Pages from both have been detached and are now in other collections (e.g., Figure 2.3).
 25. Seyller, 'Inspection,' 277.
 26. Seyller, *Pearls of the Parrot*, 41. This happens eight times in the manuscript.
 27. Windsor, Royal Library, ms. 1367; Milo Cleveland Beach and Ebba Koch, *King of the World: The Padshahnama, an Imperial Mughal Manuscript from the Royal Library, Windsor Castle*, trans. Wheeler Thackston (Washington, DC, 1997). Abu'l-Fadl 'Allami, *A'in-i Akbari*, 109, mentions a Muhammad Amin al-Mashhadi as one of the skilled practitioners of *nasta'liq* at Akbar's court. If this is the same person, he would have been a very old man by this point.
 28. Folio 96b is illustrated in Beach and Koch, *Padshahnama*, fig. 4. The painting following it on folio 98b is their no. 17.
 29. Fol. 49b is illustrated in Beach and Koch, *Padshahnama*, fig. 5; the two-page illustrations on folios 48b–9a and 50b–1a are their nos. 8–9 and 10–11, respectively.
 30. Peter T. Daniels and William Bright, *The World's Writing Systems* (New York, 1996), 244.
 31. Paris, BN, ms. arabe 472; François Déroche, *Les Manuscrits du coran, du Maghrib à l'Insulinde*, Bibliothèque Nationale, Département des Manuscrits, Catalogue des Manuscrits Arabes (Paris, 1985), no. 549 and pl. XXXA.
 32. E.g., David James, *After Timur: Qur'ans of the 15th and 16th Centuries*, ed. Julian Raby, The Nasser D. Khalili Collection of Islamic Art (London, 1992), 215.
 33. Several folios also bear traces of small (1.5–1.8 cm) round seals that have been obliterated so that they are unreadable, presumably by a later owner who wanted to disguise the manuscript's provenance. The seals do not appear to be those of the Mughal emperors Shah Jahan or 'Alamgir. I thank John Seyller for this information, which is part of his forthcoming work on Mughal seals.
 34. The basmala in Ruzbihan's manuscript (CBL 1558) is illustrated in Arthur J. Arberry, *The Koran Illuminated: A Handlist of Korans in the Chester Beatty Library* (Dublin, 1967), frontispiece and pl. 7.

35. See also the one copied at Gwalior in 801/1399 (Geneva; Sadruddin Aga Khan Collection; see Chapter 9, note 78).
36. Dublin, CBL, Pers. ms. 225; David James, 'The "Millennial" Album of Muhammad-Quli Qutb Shah,' *Islamic Art* 2 (1987): 243–55. For a brief overview of the Qutbshahis, see *The Encyclopedia of Islam, New Edition*, ed. H. A. R. Gibb and others (Leiden, 1960), 'Qūṭbshāhī'.
37. For the term, see Yves Porter, *Painters, Paintings and Books: An Essay on Indo-Persian Technical Literature, 12–19th Centuries*, trans. Mrs. S. Butani, (New Delhi, 1994), 118–19.
38. James concluded that the first half, which contains longer works that are written in both Arabic and Persian including some by older Safavid poets, belonged to another album compiled in the year 1000/1591–2 as part of the celebrations to mark the millennium of the Islamic calendar.
39. This is true, for example, of the works of the Ottoman calligrapher Hafiz Osman (see Chapter 11 and Figure 11.10).
40. James, 'Millennial Album.'
41. Hyderabad, Salar Jang Museum, 978. The text has been published as Muḥammad-Qūlī Qūṭbshāh, *Kulliyat*, ed. S. M. Q. Zor (Hyderabad, 1359/1940).
42. Mark Zebrowski, *Deccani Painting* (Berkeley and Los Angeles, 1983), 150–60; George Michell and Mark Zebrowski, *Architecture and Art of the Deccan Sultanates*, *The New Cambridge History of India* (Cambridge, 1999), 193–4.
43. The most most notable is a two-tiered *thuluth* with a long tail extending back to the right across the page that divides the calligraphy into two zones. This returning tail on the word *fi* is used on fol. 7a, illustrated in James, 'Millennial Album,' pl. 14C.
44. This manuscript, also in the Salar Jang Museum in Hyderabad (ms. 2519), is a Shi'ite commentary on the Koran.
45. Michell and Zebrowski, *Deccan*, fig. 83.
46. Hyderabad, Jagdish and Kalma Mittal Museum of Indian Art, 76.15411; Stuart Cary Welch, *India: Art and Culture, 1300–1900* (New York and Munich 1993), no. 214.
47. Porter, *Painters, Painting and Books*, 47 and n. 55. On the problems of identifying the origin of the marbling technique, see Chapter 2.
48. There is a vast literature on this building, justly heralded as a landmark of world architecture. For an overview, see Sheila S. Blair and Jonathan M. Bloom, *The Art and Architecture of Islam, 1250–1800*, *The Pelican History of Art* (London and New Haven, 1994), 278–81. For a source-book, including a translation of the inscriptions and detailed illustrations of them, see Begley and Desai, *Tāj Mahal*.
49. Shorter bands with Suras 81 (al-Takwir), 82 (al-Infitar), 84 (al-Inshiqāq) and 98 (al-Bayyina) frame the doorways.
50. Putting together inscriptions and texts, Wayne E. Begley, 'Amānat Khān and the Calligraphy on the Tāj Mahal,' *Kunst des Orients* 12 (1978–9): 5–60, assembled a biography of the calligrapher. Born c. 1572 in Shiraz, 'Abd al-Haqq was the son of the calligrapher Qasim al-Shirazi and younger brother of Mulla Shukrallah. Both brothers were scholars and calligraphers, who probably trained with their father. They emigrated from Shiraz to seek their fortunes in India, where Mulla Shukrallah became the more famous as a Persian scholar and courtier, eventually awarded the title Afdal Khan. He died in January 1639, aged seventy, and his younger brother, either grief-stricken or out of work, retired to the Saray Amanat Khan, a large caravanserai that he had built near Lahore (see Wayne E. Begley, 'A Mughal Caravanserai Built and

Inscribed by Amanat Khan, Calligrapher of the Taj Mahal,' in *Indian Epigraphy: Its Bearing on the History of Art*, ed. Frederick M. Asher and G. S. Gai [New Delhi, 1985], 283–90. Its construction was finished between 18 September 1640 and 11 April 1641. Amanat Khan died the following year and was presumably buried in his pious foundation there.

51. For the building, see Blair and Bloom, *The Art and Architecture of Islam, 1250–1800*, 276, with references.
52. London, Khalili Collection, QUR614; Bayani, Contadini, and Stanley, *The Decorated Word*, no. 58.
53. For a slightly earlier example from Bidar, a calligraphic band in tile mosaic on the Madrasa of Mahmud Gawan dated 1472, see Michell and Zebrowski, *Deccan*, fig. 100.
54. *A'in-i Akbari*, 105.
55. Wayne E. Begley, 'The Myth of the Taj Mahal and a New Theory of its Symbolic Meaning,' *Art Bulletin* 61 (1979): 7–37.
56. Furthermore, other contemporary buildings are decorated with such Koranic excerpts. The Mosque of Shaykh Lutfallah in Isfahan, for example, is inscribed on the interior with Suras 97 (al-Qadr), 104 (al-Humaza), 109 (al-Kafirun), 94 (al-Inshira), 105 (al-Fil), 107 (al-Ma'un), 95 (al-Tin), and 1 (al-Fatiha) inscribed in square kufic in the spandrels. See Lutfallah Hunarfar, *Ganjīna-yi āthār-i tārikhī-hi isfahān* (Tehran, 1350/1977), 410. Like the short *suras* used to decorate luster tiles, these chapters were undoubtedly chosen because of their brevity: they all have eight verses or less.
57. For Ottoman examples, see Chapter 11, note 22.
58. The Khalili Collection in London owns four: QUR280, attributed to the mid-sixteenth century; QUR326, attributed to the second half of the seventeenth century; QUR400, dated 1184/1770–1, probably Isfahan; and QUR500, dated 1229/1814, probably Kashmir; Bayani, Contadini, and Stanley, *The Decorated Word*, nos. 64–6 and 78.
59. The inscriptions on the Taj Mahal even contain three of the same *suras* (36 on the exterior and 67 and 48 on the interior) used in the Irano-Indian manuscripts.
60. London, Khalili Collection, QUR280; Bayani, Contadini, and Stanley, *The Decorated Word*, no. 64.
61. London, Khalili Collection, 227; Bayani, Contadini, and Stanley, *The Decorated Word*, no. 61.
62. Haftqalami, *Tadhkirah-i khwashnivisan*, 125, cited in Bayani, Contadini, and Stanley, *The Decorated Word*, 173 and n. 19.
63. Ellen S. Smart, 'Akbar, Illiterate Genius,' in *Kaladarana, American Studies in the Art of India*, ed. Joanna G. Williams (New Delhi, 1981), 99–107, has identified a few words and phrases in Akbar's hand. One is on the opening page of a splendid copy of Sa'di's *Gulistan* penned by the Timurid calligrapher Sultan 'Ali Mashhadi in 873/1468–9, once in the collection of the Marquis of Bute and now in the Art and History Trust Collection (Abolala Soudavar, *Art of the Persian Courts: Selections from the Art and History Trust Collection* [New York, 1992], no. 136). The first page also has notes in the hands of Jahangir and Shah Jahan. Jahangir's hand can also be seen on the flyleaf of the so-called Juki *Shahnama* (London, Royal Asiatic Society ms. 239), a copy made c. 1440 for the Timurid prince Muhammad Juki and later in the Mughal royal library. See Michael Brand and Glenn D. Lowry, *Akbar's India: Art from the Mughal City of Victory* (New York, 1985), fig. 9.

64. The Koran manuscript given to Darashikuh is Khalili Collection, QUR61; Bayani, Contadini, and Stanley, *The Decorated Word*, no. 72. The album he penned is in London (BL, no. 140); for an individual specimen, see Milo Cleveland Beach, *The Imperial Image* (Washington, DC, 1981), no. 68.
65. Both are in the Khalili Collection. The Safavid copy, perhaps made for Tahmasp, is QUR729 (James, *After Timur: Qur'ans of the 15th and 16th Centuries*, no. 43). The smaller Mughal copy is QUR417; Bayani, Contadini, and Stanley, *The Decorated Word*, no. 60.
66. See Preface, xxxii–xxxiii.
67. The original study of manuscripts produced in Kashmir, based on 17 illustrated manuscripts in St Petersburg, is A. Adamova and T. Grek, *Miniatures from Kashmirian Manuscripts* (Leningrad, 1976). For a more recent study of one manuscript, with important additions to the corpus, see Karin Ådahl, 'A Copy of the *Divan* of Mir 'Ali Shir Nava'i of the Late Eighteenth Century in the Lund University Library and the Kashmiri School of Miniature Painting,' in *Persian Painting from the Mongols to the Qajar: Studies in Honour of Basil W. Robinson*, ed. Robert Hillenbrand (London, 2000), 3–18. For Koran manuscripts made in Kashmir, see Bayani, Contadini, and Stanley, *The Decorated Word*, 228–57.
68. The best example is Muhammad Husayn al-Kashmiri, later known as *zarin qalam*, the most famous *nasta'liq* calligrapher at Akbar's court; see below, p. 552 and note 73.
69. Jacquemenot's report is cited in R. K. Parmu's *A History of Muslim Rule in Kashmir, 1310–1819* (New Delhi, 1969): 415–16, cited in turn in Bayani, Contadini, and Stanley, *The Decorated Word*, 229 and n. 3.
70. Tehran, Gulistan Library, 949; Badri Ātabay, *Fihrist-i qur'ānḥā-yi khattī-yi kitābkhāna-yi saltanatī* (Tehran, 1351/1981), no. 37.
71. St Petersburg Public Library, no. 271; Adamova and Grek, *Miniatures from Kashmirian Manuscripts*, no. N1.
72. E.g., London, Khalili Collection, QUR61 and QUR143; Bayani, Contadini, and Stanley, *The Decorated Word*, nos. 72–3.
73. Abu'l-Fadl 'Allami, *A'in-i Akbari*, 108–9.
74. Seyller, *Pearls of the Parrot*, 39 and notes 1–9, has compiled the most recent biography of the calligrapher and list of his works. He was active from 968/1560–1 at least until 1019/1610–11.
75. The pages now measure 28 × 19 cm, but, like the ones in the British Library *Khamsa*, have been remargined. The written surface measures 17 × 10 cm. The Walters manuscript is also one-third shorter than its contemporary: it originally contained 233 folios, whereas the British Library *Khamsa* originally has 370.
76. Abu'l-Fadl 'Allami, *A'in-i Akbari*, 115.
77. Michael L. Bates, *Islamic Coins*, ANS Handbook (New York, 1982), 48.
78. For a brief biography, see *Encyclopaedia Iranica*, ed. Ehsan Yarshater (London and New York: Routledge, 1985), "Abd al-Šamad Šīrāzī; Turner, *DoA*, 'Abd al-Samad.' On his appointment as director of the mint, see Brand and Lowry, *Akbar's India*, 120.
79. Akbar's coins issued after 992/1584 are dated to the regnal year and have a new legend in place of the traditional profession of faith. The text reads *allahu akbar jalla jalalahu* (God is Great; may His glory be splendid). Although outwardly pious, the text can also be read as a punning reference to Akbar, whose honorific (*laqab*) was Jalal al-Din (glory of the faith).
80. The phrase is used by J. Burton-Page in his article, *EI/2*, 'Mughals 11.

- Numismatics,' an excellent introduction to the subject, but unfortunately devoid of illustration. This is a pity, for Mughal coins deserve further study not only for their historical interest but even more for their artistic value. Better color photos of a few issues are available in Michael L. Bates and Robert E. Darley-Doran, 'The Art of Islamic Coinage,' in *Treasures of Islam*, ed. Toby Falk (London, 1985), 350–94.
81. For the development of Safavid coinage, see Priscilla P. Soucek, 'Coinage of the Qajars: A System in Continual Transition,' *Qajar Art and Society*, ed. Layla S. Diba, *Iranian Studies* 34, nos. 1–4 (2001): 52–89.
 82. See, for example, Abu'l Hasan's painting of Jahangir embracing Shah 'Abbas from a copy of the *Jahangirnama* (Washington, DC, FGA 45.9; Wheeler M. Thackston, trans. and ed., *The Jahangirnama: Memoirs of Jahangir, Emperor of India* [New York, 1999], frontispiece).
 83. Many imperial Mughal seals are illustrated on the flyleaf of the *Juki Shahnama* (Brand and Lowry, *Akbar's India*, fig. 9). The seal of Babur is at the top left, those of Humayun at the middle left and the top center, that of Jahangir below it; that of Shah Jahan to the right; and that of Awrangzib at the bottom center. See Figure 12.8 for Awrangzib's copy of Akbar's seal.
 84. Babur's seal, for example, has a pyramidal pile of three circles. The seal that Mulla Ahmad 'Ali designed for Akbar has the emperor's name written within a circle surrounded by eight smaller circles with the names of his ancestors back to Timur, whose name is written directly above that of the Mughal emperor to affirm his lineage.
 85. Abu'l-Fadl 'Allami, *A'in-i Akbari*, 273–4.
 86. In contrast, the Ottoman chancery at Istanbul survived until 1924 and many documents were preserved in the Topkapı Palace, thereby making it possible to study the development of the imperial Ottoman *tughra* in great detail (see Chapter 11 and Figure 11.15).
 87. Archives of the Catholic Archdiocese of Agra, India; Brand and Lowry, *Akbar's India*, no. 80. The end of the date is missing, but on the basis of subject matter and formal characteristics, it has been attributed to the late 1590s.
 88. Washington, DC, Smithsonian Institution, Sackler Gallery, S1996.32. It has been exhibited in the museum, but to my knowledge never published. I thank Massumeh Farhad for supplying the museum's object report.
 89. See the large basalt example in the Philadelphia Museum issued by Barbakshah of Bengal in the mid-fifteenth century; Nabih A. Faris and George C. Miles, 'An Inscription of Bārbak Shah of Bengal,' *Ars Islamica* 7, no. 2 (1940): 141–7.
 90. E.g., London, Khalili Collection, CAL259; Nabil F. Safwat, *The Art of the Pen: Calligraphy of the 14th to 20th Centuries*, The Nasser D. Khalili Collection of Islamic Art (London, 1996), nos. 127–8.
 91. London, V&A, I.M. 163–1913; Stuart Cary Welch, *India: Art and Culture, 1300–1900*, no. 230.
 92. E.g., one in the Musée d'histoire naturelle in Paris, illustrated in Y. H. Safadi, *Islamic Calligraphy* (Boulder, CO, 1978), no. 154. The calligrapher's signature is clearer in the paper copy: it is signed 'Muhammad . . . Bek.'
 93. Private collection; Annemarie Schimmel, 'Nur ein Störrisches Pferd,' in *Festschrift George Widengren* (Leiden, 1972), 98–107; Stuart Cary Welch, *Indian Drawings and Painted Sketches 16th through 19th Centuries* (New York, 1976), no. 31; Anthony Welch, *Calligraphy*, no. 77.

94. Oxford, Bodleian Ms. Laud Or. Rolls b.1; Annabel Teh Gallop, *Golden Letters: Writing Traditions of Indonesia* (London and Jakarta, 1991), no. 1.
95. Gallop, *Golden Letters*, no. 2.
96. Compare, for example, the one in a large Koran manuscript in Berlin (Museum für islamische Kunst no. I.42/68) that was the subject of a recent monograph by François Déroche and Almut von Gladiss, *Der Prachtkoran im Museum für islamische Kunst* (Berlin, 1999), esp. p. 57.
97. E.g., Gallop, *Golden Letters*, nos. 8–15.
98. EI/2, 'Djāwī'.
99. Gallop, *Golden Letters*, no. 30.
100. Kuala Lumpur, Islamic Arts Museum Malaysia, 1998.1.3427; Venetia Porter and Heba Nayel Barakat, *Mightier than the Sword: Arabic Script: Beauty and Meaning* (Kuala Lumpur, 2004), no. 48.
101. Kuala Lumpur, Islamic Arts Museum Malaysia, 1998.1.3500; Porter and Barakat, *Mightier than the Sword*, no. 49. Another example in the Khalili Collection (QUR133; Stephen Vernoit, *Occidentalism: Islamic Art in the 19th Century*, The Nasser D. Khalili Collection of Islamic Art [London, 1997], no. 31; Bayani, Contadini, and Stanley, *The Decorated Word*, no. 4) is larger (31 × 25 cm).
102. Those in the Khalili manuscript are also written in alternating lines of red and black ink, another feature typical of Koran manuscripts in *bihari* script.
103. London, Khalili Collection, QUR706; Vernoit, *Occidentalism*, no. 28; Bayani, Contadini, and Stanley, *The Decorated Word*, no. 5. We do not know exactly where the calligrapher of this particular manuscript worked, but a century later it was in Zanzibar, where it was acquired by an Omani who had settled there, and the materials and style confirm that it should be attributed to east Africa. Like its Malaysian counterparts, this large (32 × 22 cm) manuscript is copied on European paper in black ink. Typical features of manuscripts in *bihari* script include format (with two sizes of the same script, a larger one for the first and last lines on each page), distinctive script (with angular letters, *alif* pitched to the left, sweeping strokes with thick terminals), and vocalization (marked with flat, rather than diagonal, strokes). Like the Koran manuscript attributed to the Yemen in the late fifteenth century (Figure 9.9), the script in this copy has sweeping tails, a flat line, the typical combination of black and red for the text, and braided bands for illumination. Local features include the typical color palette with yellow and green and the sophisticated use of reserved geometric decoration, particularly the cable bindings marking the beginning of the Koranic text on folio 7b and the marginal roundels marking places of prostration and textual divisions, in which the letters marking *sajda*, *hizb*, and the like are done in reserve.
104. James de Vere Allen, 'Siyu in the 18th and 19th Centuries,' *Transafrican Journal of History* 8 (1979): 11–35; James de Vere Allen, 'Swahili Book Production,' *Kenya Past and Present* 13 (1981): 17–22; Howard Brown, 'Siyu: Town of the Craftsmen; a Swahili Cultural Centre in the Eighteenth and Nineteenth Centuries,' *Azania* 23 (1988): 101–13. Some objects from the region, including a writing chest and Koran stand, were exhibited and published by René A. Bravmann, *African Islam* (Washington, DC, 1983), Chapter 7, 'The Swahili Coast.'
105. Royal Asiatic Society, London; Simon Digby, 'A Qur'an from the east

- African Coast,' *AARP* 7 (April 1975): 49–55. A civil servant in the Bombay Service who was interested in eastern languages and exotica, Arbuthnot (1833–1901) collaborated with Richard Burton on the English translation of the *Kamasutra*.
106. Terrence Walz, 'The Paper Trade of Egypt and the Sudan in the Eighteenth and Nineteenth Centuries,' in *Modernization in the Sudan*, ed. M. W. Daly (New York, 1988), 29–48.
 107. Allen, 'Swahili Book Production.'
 108. A sixteenth-century copy in the Bibliothèque Nationale (ms. arabe 396; Déroche, *Manuscripts du coran II*, no. 317), for example, measures 41 × 27 cm, and a seventeenth-century one in Rabat (National Library Jim III; Martin Lings and Yasin Safadi, *The Qur'an* [London, 1976], no. 51) measures 44 × 37 cm.
 109. Pans, BN, ms. arabe 412; Déroche, *Manuscripts du coran II*, no. 315.
 110. London, BL, Or. 1405; Martin Lings, *The Quranic Art of Calligraphy and Illumination* (London, 1976), 108–10; Lings and Safadi, *The Qur'an*, no. 50.
 111. See Chapter 6, p. 225 and note 83.
 112. Cairo, DK 25; Lings, *Quranic Art*, no. 112–14; Lings and Safadi, *The Qur'an*, no. 53; Blair and Bloom, *The Art and Architecture of Islam, 1250–1800*, pl. 333.
 113. *El/2*, 'al-Djazūli.' A learned scholar and jurisconsult who lived in Fez and traveled to the holy cities of Arabia, he joined the Shadhiliyya order of Sufis. He reportedly went into religious retreat for fourteen years, but re-established himself in Safi on the Atlantic coast and was seen as a staunch defender of Islam against both internal and external threats, in his time the Portuguese. After he died sometime between 1465 and 1470, he became the focus of a popular religious brotherhood, the Jazuliyya, whose adherents believed in the repeated recitation of his celebrated work for spiritual benefit. His tomb, relocated to the Riyad al-'Arus quarter of Marrakesh, became a shrine, and today he is considered one of the seven patron saints of the city.
 114. Berlin, Museum für islamische Kunst; Jens Kröger, 'Ein weit Gereistes Buch: Zu einer Neuerwerbung,' *Museum für Islamische Kunst: Berlin, Staatliche Museen Preussischer Kulturbesitz, Museums Journal* 5, no. 1 (January 1991): 56–7.
 115. Jan Just Witkam, 'The Battle of the Images: Mekka vs. Medina in the Iconography of the Manuscripts of al-Jazūli's *Dalā'il al-Khayrāt*,' in *Beiruter Texte und Studien* (Beirut, forthcoming).
 116. Fez, Library of the Qarawiyyin Mosque, no. 1640; *De l'Empire romain aux villes impériales: 6000 ans d'art au Maroc* (Paris, 1990), no. 564.
 117. Kröger, 'Ein weit Gereistes Buch: Zu einer Neuerwerbung,' pl. 1.
 118. Rabat, General Library, no. 399; *De l'Empire romain*, no. 551.
 119. Many illustrated in Abdelkebir Khatibi and Mohammed Sijelmassi, *The Splendour of Islamic Calligraphy*, trans. J. Hughes and E. J. Emory (London, 1995).
 120. Khatibi and Sijelmassi, *The Splendour of Islamic Calligraphy*, 168.
 121. Rabat, Bibliothèque Générale, no. 12613; *De l'Empire romain*, no. 553, illustrated on back cover.
 122. Khatibi and Sijelmassi, *The Splendour of Islamic Calligraphy*, 144.
 123. Khatibi and Sijelmassi, *The Splendour of Islamic Calligraphy*, 146–7.
 124. A. D. H. Bivar, 'A Dated Kuran from Bornu,' *Nigeria Magazine* (June 1960): 199–205. As in south-east Asia, the cataloguing of collections in this region will undoubtedly bring to light more early manuscripts. In 1987, C. C. Stewart at the University of Illinois at Urbana-Champaigne

initiated a project known as AMMS to provide an on-line catalogue to manuscripts in the West African Sahel. AMMS version 2 database included 19,000 records from six collections in Boutilimit, Mauritania, Niger, Paris, Timbuctu, and Evanston, Illinois. The newer third version, described, enthusiastically, at <http://test.atlas.uiuc.edu/amms/ammsinfo.html#acks>, 'will allow for easier addition of new material, internet access to these collection entries, and an opportunity to finally reunite an impressive quantity and range of Arabic writing representative of a broad sweep of West Africa in, mainly, pre-colonial times.' On the Mauritanian collections, see also Louis Werner, 'Mauritania's Manuscripts,' *Saudi Aramco World* 54, no. 6 (November/December 2003): 2-16.

125. See Chapter 1.
126. A. D. H. Bivar, 'The Arabic Calligraphy of West Africa,' *African Language Review* 7 (1968): 3-15.
127. Ibn Khaldûn, *The Muqaddimah: An Introduction to History*, trans. Franz Rosenthal (New York, 1967 [1958]), 2:286.
128. See also the criticisms by Stanley in Bayani, Contadini, and Stanley, *The Decorated Word*, 33-4.
129. On the Almoravids and this area, see *EI*/2, 'Murābiṭūn' and 'Mūrītaniyā.'
130. Reproduced in Bayani, Contadini, and Stanley, *The Decorated Word*, 32.
131. Bivar's identification of this script as 'ifriqi on the basis of Ibn Khaldun's mention of the name poses the same problem that scholars have encountered in trying to identify early scripts on the basis of references in Ibn al-Nadim's *Fihrist* (see Chapter 5): without dated and identified examples, it is difficult, if not impossible, to match names mentioned in texts with extant examples.
132. David James, *Qur'ans and Bindings from the Chester Beatty Library: A Facsimile Exhibition* (n.p., 1980), nos. 94-5; Adrian Brockett, 'Aspects of the Physical Transmission of the Qur'an in 19th-Century Sudan. Script, Decoration, Binding and Paper,' *Manuscripts of the Middle East* 2 (1987): 45-67; Bayani, Contadini, and Stanley, *The Decorated Word*, nos. 6-7.
133. See, for example, one transcribed by Sayrallah for Malam al-Qadi ibn al-Husayn of Bornu and dated 8 Rabi' I 1250/15 July 1834 and once in the collection of the Newberry Library in Chicago (Or. ms. 235); *The Qur'an and Calligraphy: A Selection of Fine Manuscript Material*, Bernard Quaritch Catalogue 1213 (London, 1995), no. 21.
134. Leeds University, mss. 619 and 301; Brockett, 'Qur'an in 19th-Century Sudan.'
135. Another sachel is illustrated in James, *Qur'ans and Bindings*, no 115.
136. For such textiles, see Patricia L. Fiske, W. Russell Pickering, and Ralph S. Yohe (eds), *From the Far West: Carpets and Textiles of Morocco* (Washington, DC, 1980).
137. Tim Stanley (*The Decorated Word*, 33-4) dubbed it *sudani* as it is typical of the Sahel region. Though geographically apt, the name is undocumented in the meagre sources and runs the risk of confusion, for many today identify the Sudan with the modern Republic of the Sudan or Nilotic Sudan.

Part VI: The Many Faces of Islamic Calligraphy in Modern Times

From Traditional Styles to Graphic Design and Calligraphic Art

ISLAMIC CALLIGRAPHY IS ALIVE and well in modern times, not only in the Islamic lands but also in Europe and the United States. Many calligraphers are copying traditional styles, many schools and organizations are teaching traditional methods, and many scholars are studying traditional scripts, particularly in conservative circles where figural art, like music, is considered to skirt the fringes of propriety.¹ Calligraphy, by contrast, is seen as normative.

Partly as a reaction to the conservatism associated with traditional Arabic calligraphy, calligraphers are also branching out in new directions. Some are tackling the question of the aesthetic qualities of Arabic type. Printing was slow in coming to the Islamic world,² but the situation is changing rapidly with new digital software and computer graphics. In the dissemination of written information through print, the semantic element of writing is basic, but graphic designers are also confronting the problem of its formal and aesthetic qualities, using new technologies to expand traditional styles.

Other artists are branching out in new novel directions, replacing pen and ink on parchment or paper with different media. Some are transforming calligraphy into three-dimensional forms, making calligraphic sculpture (known in Arabic as *naht khatti*) of new materials like bronze and wood. Many more are replacing the pen with the brush, painting calligraphic compositions (*taswir khatti* or *lawha khattiya*) in oils, acrylics, and watercolors, assembling them in collages, or working them in other media such as silk screen and etching. Calligraphy is often one element incorporated into multimedia compositions that can be either representational or abstract. In these works the balance has generally shifted from readability to visibility, as the calligraphy is meant to be appreciated more for its formal than for its semantic qualities.

Writers and critics are still searching to define this new calligraphic art. Even the name is problematic. For some, the traditional art of classical Arabic calligraphy (*fann al-khatt al-'arabi*) has been supplemented by *al-madrassa al-huruffiya* (literally, the school of letters). The Jordanian artist and critic Wijdan Ali prefers the rubric 'calligraphic school of art' (*al-madrassa al-khattiyya fi'l-fann*).³ All these terms imply, however, a unity and concerted purpose in what

might better be seen as single artists or occasionally groups seeking their own paths of individual expression.

The role of calligraphy also seems to have broadened in modern times. In addition to its semantic and aesthetic goals of conveying meaning and form, artists are using calligraphy for socio-political ends. In some cases, calligraphy has also become a football in the World Cup of art. As part of the nationalist movements that developed throughout the region in the twentieth century, some scholars are questioning the very idea of an 'Arabic' or an 'Islamic' calligraphy. Many champion nationalist causes. Iranians, for example, speak of 'Persian' calligraphy and Turks of 'Turkish' calligraphy. In other cases, artists are using calligraphic paintings to convey a political message on subjects ranging from the Palestinian problem, the Iran-Iraq war, and the devastation in Afghanistan to the oppression of women.

We know this because of a new and crucial source of information that sets the study of modern calligraphy apart from that of earlier periods: the writings of the authors themselves.⁴ Contemporary calligraphers frequently expound on their own work, what it means, and why they executed it in a particular way. Earlier calligraphers occasionally left writings about their work, as, for example, Sultan 'Ali's poem on writing incorporated in Qadi Ahmad's treatise on calligraphy,⁵ but these are rare and hence often difficult to contextualize. Modern calligraphers, by contrast, revel in describing their work and explaining what their works of art, especially the often-loaded titles, mean to them.

A case in point is the series of paintings entitled *Karbala* (Figure 13.1) by Wijdan Ali, also called simply Wijdan.⁶ The title refers to the eighth-century battle in southern Iraq in which the Prophet's grandson Husayn was martyred. It is a subject of particular fervor for Shi'ites, who re-enact the tragic story every year on the tenth of Muharram, the day known as '*ashura*'.⁷ In her survey of modern Islamic art, the artist explains that at the onset of the first Gulf War in 1991, she abandoned figural representation, using couplets, prose, diacritical marks, conflicting brushstrokes, and colors to evoke a calamity that became the epitome of tragedy, betrayal, and injustice committed against humanity.⁸ She chose Karbala as a subject because, in her words, she saw a hundred past Karbalas and feared a thousand more to come.

Her paintings typically contain a single letter, here *ha'*, the first letter of the name Husayn. The giant black stroke, with its blurry edges and fraying tail, and the surrounding black slashes set against a red and yellow ground evoke the horrors of fire and war. The poem scrawled along the bottom and left side recalls the terrible tragedy of Karbala. Its size and informal script provide a stark contrast to the enormous rounded *ha'*. Word and image work together to invoke calamity and destruction, but the word is subservient to the artistic message.

Modern calligraphy is also distinguished from earlier examples not only by the extraordinary variety of its media and materials, but also



by the range of the practitioners' skills and talents and the sheer quantity of the work. Everyone agrees on the merits of Ibn al-Bawwab, Yaqut, and Shaykh Hamdallah, who over time have become singled out as masters of their ages, but there is as yet no consensus on the talents of many contemporary calligraphers. No canon has yet evolved. Given the enormous number of calligraphers and the wide range of styles, media, materials, and approaches, one is apt to end up by assembling a laundry list of names or by pushing personal favorites.

In view of this plethora of information about modern Islamic calligraphy, I have taken a different tack in discussing the subject here, namely to point out some of the different directions in which calligraphers are working today. To do so, I have divided the subject under three broad rubrics. The first covers the teaching and continuation of traditional calligraphic styles in modern times. A second rubric treats the use of Arabic script in printing, typography, and computer graphics. Since these new methods make it possible to reproduce text quickly and cheaply, if not always elegantly, they reduce calligraphers' need to convey information and allow them to concentrate on the aesthetic impact. Hence, a third rubric treats new directions in calligraphic art, beginning with those works that incorporate traditional

Figure 13.1 *Wijdan 'Ali: Karbala', 1992.*

Wijdan used a single letter, *ha'*, combined with verses, brushstrokes, and color to convey the calamity and injustice evoked by the eighth-century tragedy at Karbala when the nascent Islamic community was split. The giant letter *ha'* evokes the name of Husayn, the Prophet's grandson, who was martyred at the battle.

calligraphic styles, moving to new forms and media, and ending with abstract pseudo-calligraphy. In all cases I have tried to choose a few representative practitioners, including their biographies as illustrative of the different career patterns that modern calligraphers, as well as students and scholars of calligraphy, have followed. Ibn al-Bawwab began as a house painter and then turned to calligraphy; many modern calligraphers earn their living in other ways as well. My aim here is not to be exhaustive but selective, and I have purposely drawn my examples from across the Islamic and non-Islamic lands to illustrate the vibrant role that Islamic calligraphy plays around the world today.

Traditional styles

The study of traditional Islamic calligraphy flourishes in many places. In Iran many scholars, students, and aficionados are at work, especially under the auspices of the Anjuman-i Khushnivisan-i Iran (Society of Iranian Calligraphers), which maintains branches in all the main cities of the country. The major scholar of the early twentieth century was Mehdi Bayani (1906–68), a pioneer in the field of Persian calligraphy, manuscripts, and librarianship.⁹ In addition to catalogues of the major collections in Iran, he compiled a huge biographical dictionary of calligraphers, *Ahwal va athar-i khushnivisan*.¹⁰ It contains an alphabetical listing of 1,526 masters of *nasta'liq*, with sketches of their lives and lists of their surviving works, mainly in Iranian and Turkish collections. The second edition, published in 1363/1984, includes one appendix with 759 masters of *naskh*, *thuluth*, and *riqa'*, and another compiled by his students from his notes with 67 masters of *ta'liq* and 88 masters of *shikasta* and *nasta'liq*. This book is the essential starting point for the study of calligraphy and calligraphers from Iran. Compiled by hand in the pre-computer days, it is an astonishing achievement based on personal examination of the major collections in Tehran and Istanbul, although some of the information needs to be confirmed and updated, particularly that from Western collections.

The most important contemporary writer on Iranian calligraphy is Habiballah Faza'ili. His two major works, *Atlas-i khatt* (Atlas of Writing), first published in Isfahan in 1350/1971, and *Ta'lim-i khatt* (Teaching Writing), whose seventh edition was published in Tehran in 1376/1997, are chock full of illustrations. The former reproduces many specimens by famous calligraphers. The latter contains many charts showing how the individual letters are shaped in the various scripts such as *naskh* (Figure 13.2), the one most commonly used in Iran today, and the accompanying descriptions exemplify the Persian approach to studying the subject. In *naskh*, for example, the most important feature is respect for proportions, with letters written in consistent size and shape. It is a balanced script, with half of the strokes round and half straight.¹¹ It is also a clear script, which, when

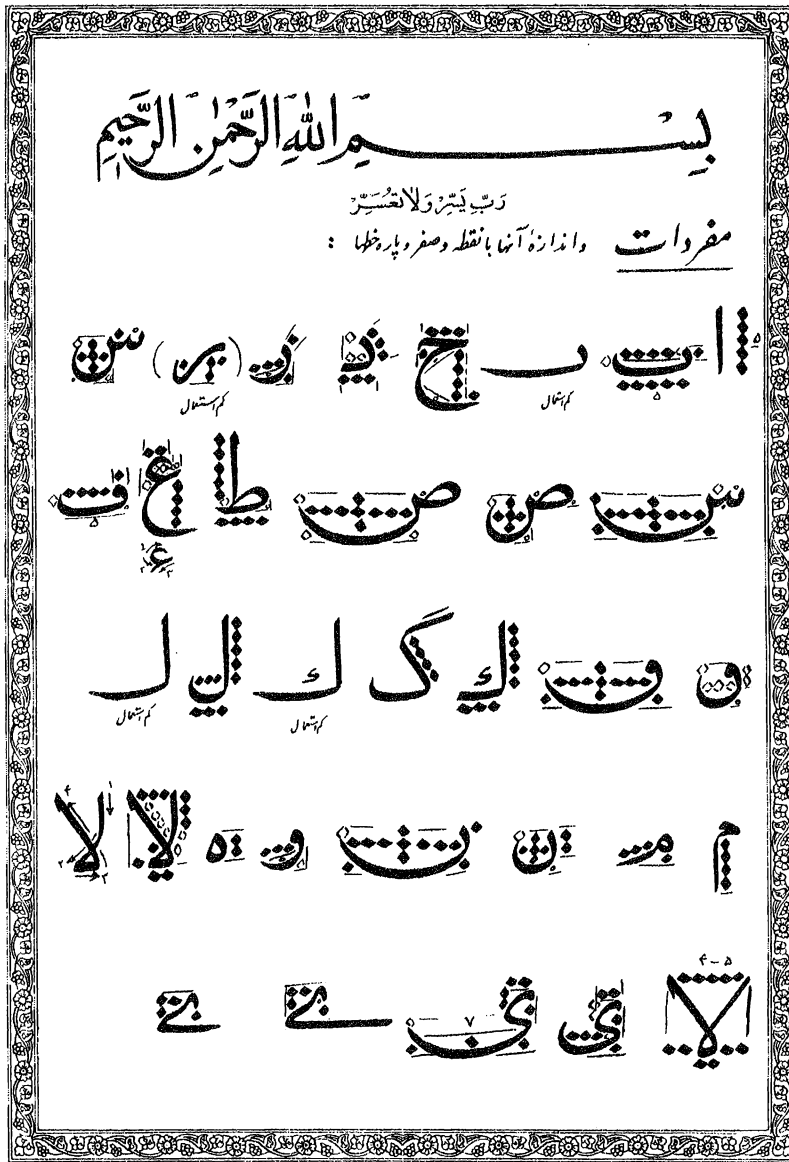


Figure 13.2 Chart of the letter shapes in naskh used to transcribe Koran manuscripts in Iran today.

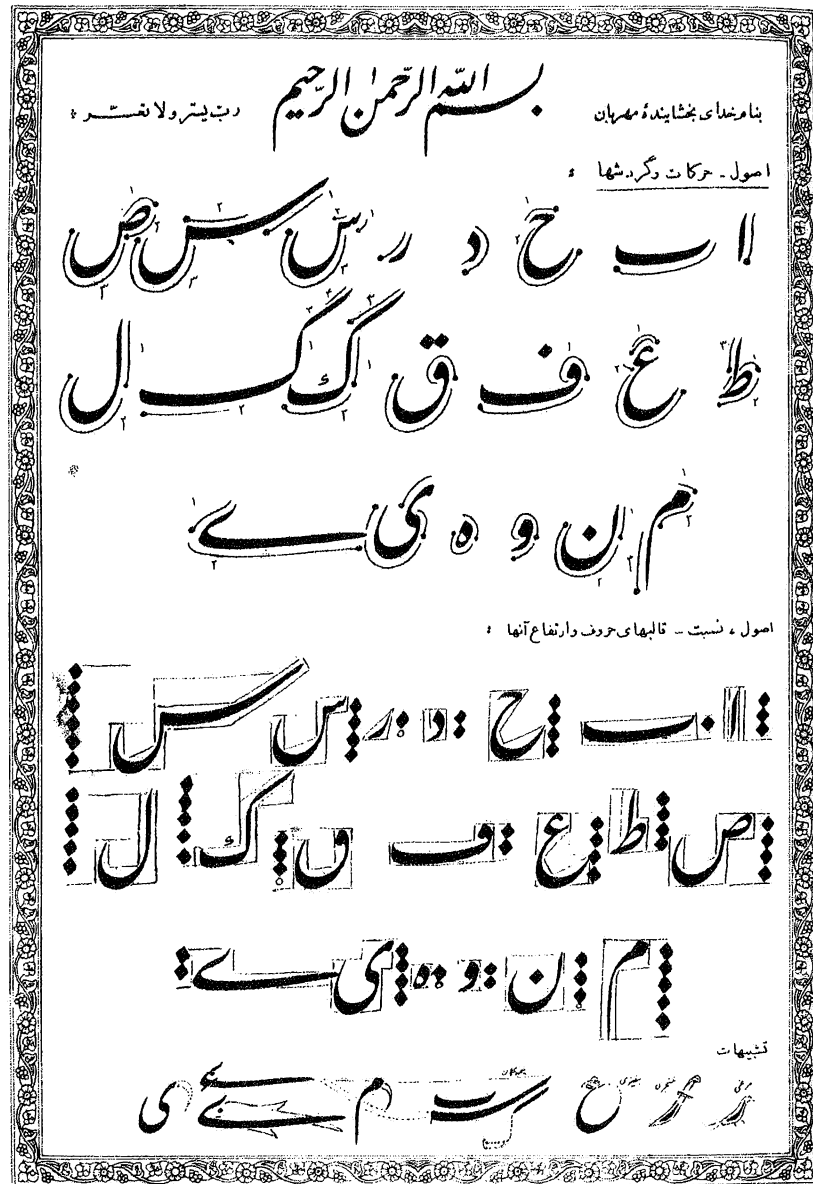
Habiballah Faza'ili is the foremost historian of calligraphy in Iran today. His manual, *Ta'lim-i khatt*, contains many charts showing how the letters in the various scripts are composed of rhomboidal dots made by pressing the nib of the pen on the paper. This chart shows the balanced letters in the type of *naskh* used to transcribe manuscripts of the Koran.

written with diacriticals, cannot be misread. The modern variety called *khatt-i miyana* (middle script) has been adapted to meet the needs of modern typography and typing. This script is used not only in Iran, but also in Afghanistan and the Arab world to print copies of the Koran and all kinds of books, newspapers, and periodicals.

Not surprisingly, Iranian scholars have paid special attention to the hanging styles developed for writing Persian, particularly *nasta'liq*. In the eyes of modern Iranian writers such as Faza'ili and Ghulam-Husayn Yusufi, *nasta'liq* epitomizes the quintessential qualities of a calligraphic hand.¹² Like *naskh*, it is legible and can be written

Figure 13.3 Chart of the letter shapes in modern *nasta'liq*.

The hanging *nasta'liq* script was developed specifically to write Persian. The upper part of the Faza'ili's chart shows the principles of movement and roundness used in making the letters; the bottom part of the chart shows the principles of proportion, including the shape of the letters and their height in rhomboidal dots.



quickly and compactly, but it is more graceful and beautiful. *Nasta'liq* slopes from upper right to lower left, and most strokes in it are round, with only one-third to one-sixth of the strokes straight.¹³ Thus, the calligrapher's pen moves more freely and more easily than in *naskh*. As in *naskh*, letters and words written in *nasta'liq* have prescribed dimensions which are determined by the dot made by pressing the nib of the pen to the paper (Figure 13.3).

Several features distinguish *nasta'liq* from other scripts, notably *naskh*. One is the beginning stroke of most initial and detached

letters. When writing *nasta'liq*, the calligrapher starts by using the right edge of the nib to make, for example, the teeth (*dandana*) of *sin*, the top of *ra*', the hook or beak (*minqar*) of *jim*, the top of an inverted final *ya*', or the beginning of a word such as *bia*. In contrast, when writing other scripts, the calligrapher starts these letters with the full width of the nib. *Nasta'liq* is also pointed differently than other scripts. In *nasta'liq* letters and words are written so compactly that there is little room for pointing, and short vowel signs (Pers. *haraka*, pl. *harakat*) and other diacritical marks are often omitted unless necessary to avoid ambiguity. In contrast, *thuluth* and other large scripts are more spacious, leaving room for large and bold pointing. Furthermore, in *nasta'liq* words are usually written separately and not joined, except in inscriptions and calligraphic specimens.

The grace and beauty of *nasta'liq* lie in its balanced distribution of thick and thin, open and closed, short and tall, in the artful shaping of letters and combinations of letters, and in the symmetry and consistency with which letters and words are juxtaposed. Several letters share the same semi-circular ending. For example, the flourishes of final *sin*, *sad*, and *nun* are identical, as are those final *ha*'/*jim*, *'ayn*, and *qaf* and those of final *lam* and *ya*'. The repetition of these round shapes across the line and over the page creates an internal rhythm.

Modern writers often describe the letter shapes used in *nasta'liq* metaphorically, comparing features of the script to elements drawn from nature and music.¹⁴ The vertical strokes in *nasta'liq*, for example, are said to have been inspired by trees and flowers; the round strokes by the undulating hills and meadows or by the treble and bass in singing; the elongations by fields and plains or by musical pauses; the curves of letters and words by the bodies of animals, birds, and particularly humans; and the sentence arrangement by flights of birds or clusters of flowers. Letters and words are said to dance, sometimes holding hands, sometimes embracing. This imagery, notably the anthropomorphic elements, derives from Persian poetry, in which the beautiful features of the beloved are often likened to letters of the alphabet. Such imagery was already made visible in medieval times in the animated script used on metalwares such as the Bobrinky Bucket or the Wade Cup.¹⁵ The musical analogies are engendered by the internal rhythm of the script.

In the aftermath of the Iranian revolution in 1979 and the relative isolation of the Islamic Republic of Iran, especially from the United States, the work of Iranian calligraphers and scholars of calligraphy is not widely known today. It is difficult, for example, to obtain Faza'ili's books. Iranian scholars, in turn, have not had access to the work of outsiders, and the field has become somewhat introspective. This situation is now changing: in October 2002 Iran hosted an international conference on the calligraphy of the Islamic world.

Quite a different scenario pertains in Turkey. The Turkish Republic's adoption of Roman script in 1928 broke the centuries-long tradition of using Arabic script for everyday affairs. Arabic language and script

Figure 13.4 Uğur Derman:
license granted in 1380/1960
based on a calligraphic
specimen by Mir 'Imad with
illumination by Gülnur
Duran.

M. Uğur Derman is the foremost practitioner and authority on calligraphy in Turkey today. He is the best link to the Ottoman past. To earn his calligraphic license, he penned this calligraphic specimen copying one by the Safavid master Mir 'Imad (Figure 11.18). Derman's lineage is clear from his teacher, Najm al-Din (Necmeddin Okyay), who is in turn acknowledged as a pupil of the Ottoman master Sami.



continued to be used for religious purposes, and in recent times there has been a revival in its calligraphic potential. Faza'ili's counterpart in Turkey and the undisputed authority on the art of calligraphy there is M. Uğur Derman. Born in 1935, he himself is an accomplished calligrapher, master of the traditional scripts, including the hanging *ta'liq* (Pers. *nasta'liq*). For his diploma in 1380/1960, Derman continued the Ottoman tradition of replicating a calligraphic specimen by Mir 'Imad (Figure 11.18), producing a copy (*taqlid*) of a quatrain by the Safavid master (Figure 13.4).¹⁶ The certificate is signed and dated at the bottom

left by his teacher Najm al-Din (Necmeddin Okyay), who notes that he himself was the pupil of Sami, in this way confirming Derman's lineage back to Ottoman times. Gülnur Duran's border decoration around the quatrain echoes Derman's Ottoman heritage: the saw-toothed *saz* leaves, peonies, and cloud bands belong to the classical Ottoman style, although the color scheme of bright blue and red does not. Derman has written extensively on the history of calligraphy,¹⁷ and in honor of his achievements, in 1996 he was made an honorary professor at Mimar Sinan University in Istanbul, formerly the Academy of Fine Arts, where formal instruction in calligraphy was reinstituted in 1936.

Derman's status as the dean of calligraphic studies in Turkey is shown by the fine festschrift presented to him in 2002 on the occasion of his sixty-fifth birthday.¹⁸ It contains not only articles dedicated to him, but also an interview in which he sets forth his views on the field of calligraphy.¹⁹ In it, he echoes the well-known adage, often attributed to Yaqt al-Musta'simi, that the art of 'calligraphy is a spiritual geometry created with material tools.'²⁰ Derman represents the Turk's eye view, arguing that the best calligraphy produced in the Islamic lands over the past five centuries was done in Istanbul. Despite the abandonment of Arabic script and an ensuing period of stagnation, he feels that the system has been able to endure thanks to the master-apprentice system, of which he himself is the pre-eminent product. Such a system has insured that the new generation in Turkey is interested in the aesthetic merits of calligraphy. The most popular script there today is *thuluth*, which Derman compares poetically to the sounds of the plectrum on the strings of a drum (*tanbur*). Although he cites legibility as the prime goal of the art of calligraphy, he notes that its beauty resides in its strokes, quoting a line of the nineteenth-century musician and calligrapher Qadi-'askar Mustafa 'Izzet Efendi: 'To read beautiful calligraphy is like smelling the aroma of a tulip.'

This master-apprentice system used today to teach calligraphy in Turkey is well described by Mohamed Zakariya, an American convert to Islam who went to Istanbul in 1984 to improve his mastery of the subject.²¹ There he studied *thuluth* and *naskh* with the master Hasan Chelebi, imam of the Selam-i Ali Camii, student of Hamid Aytach, and one of the last calligraphers in the Ottoman line. Zakariya received his diploma in *thuluth/naskh* script in 1988, perhaps the only American to do so, and continued his studies in *ta'liq/nasta'liq* with Ali Alparslan, receiving a second diploma in 1997. Zakariya's training shows that the classical Turkish system of copying (*taqlid*), followed by Derman under the calligrapher Necmeddin Okyay, continues today. Following this method, the seated master pens an exemplar (*mashq*). The attendant student observes the master's movements and then practices by rewriting the master's work, which the master in turn corrects in red. This copying is repeated until the master is satisfied and allows the student to progress to the next lesson.

The modern course of study followed in Turkey and elsewhere comprises two stages. In the first, the student practices alphabetic exercises (Turk. *müfredat*), in which the letters of the Arabic alphabet are written in sequence as an exemplar, like the one penned by Darvish Muhammad (Figure 11.9). These alphabetic exercises comprise some fifteen to twenty lessons. The first begins with a famous prayer for success: 'Lord, make it easy and not difficult,' also penned by Faza'ili at the top of his calligraphic examples showing the proportional system of dots in the various scripts (Figures 13.2 and 13.3). The student moves through the classic scripts known as the Six Pens (*naskh*, *thuluth*, *muhaqqaq*, *rayhan*, *tawqi'*, and *riqa'*), learning to write the individual letters in their various positions (independent, initial, medial, and final) and in combination with other letters. The letters are measured in terms of dots, and their position is indicated by diagonal lines. In the smaller scripts, both consonants and vowels are written with the same pen, while in the larger scripts a smaller pen is used for vocalization. These forms are the basic building blocks of calligraphy. Practice is essential, and the repetition of these simple alphabetic exercises can take years.

In the second part of the course, the student learns the composition of words and phrases by studying and writing the compounds known in Turkish as *mürekkabat* (Arab. *murakkabat*), the implication being that there is only one proper way to do so. In these lessons, the forms learned in the first half of the course are put to use in sentences, including poems, odes, and sayings of the Prophet. The typical example contains two lines of *thuluth* sandwiching two lines of *naskh*, the two scripts most prominent under the Ottomans (see Chapter 11). The student may also copy a calligraphic specimen (*qit'a*) penned by a famous master (Figure 11.10). This specimen was often used for the student's diploma, such as the one by Mir 'Imad (Figure 11.18) that Derman copied for his teaching certificate (Figure 13.4) or the one that his teacher Necmeddin penned in 1322/1912 for his certificate from Sami.²²

Once the student has successfully completed both stages, the teacher issues a diploma or permission (*ijaza*), giving the student permission to sign his work with the verb *katabahu* (so-and-so wrote it). The aim is to achieve consistency in size and shape of letters and phrases. As Zakariya remarked, such transcription is a slow and even laborious process, although it looks fluid on the page. The total training can take from three to ten years and is based on personal interaction and affinity. The teacher is not paid for teaching and does not give grades, but is responsible for introducing his student to other calligraphers and their works and initiating the student into the calligraphic tradition. Such a system, based on copying, does not encourage innovation, favoring stasis over change.

In the past few decades, Istanbul has become a major center for the study of Islamic calligraphy under the auspices of the Research Center for Islamic History, Art and Culture (IRCICA).²³ Founded in

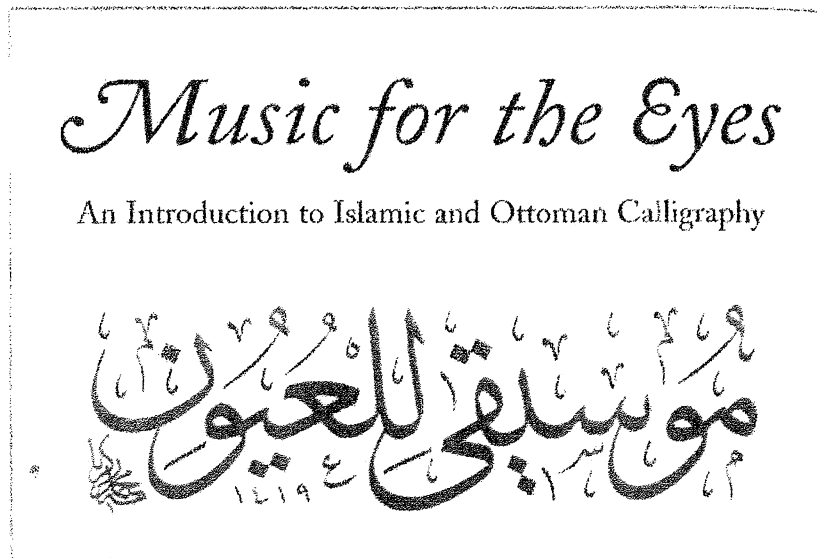
1980 and now the Executive Secretariat of the International Commission for the Preservation of Islamic Cultural Heritage (ICPICH), the center has generated renewed interest in Arabic calligraphy, both within Turkey and across the Islamic lands. Under its director, Ekmeleddin Ihsanoğlu, IRCICA has promoted the study of traditional Arabic calligraphy. One method is through publications. In addition to an exercise book on *thuluth* and *naskh* by the Ottoman calligrapher Mehmed Sevki Efendi (1829–87), IRCICA has published Derman's monograph on Islamic calligraphy, which has been issued in Arabic, Turkish, Japanese, and Malay as well as an English translation by Zakariya.²⁴ This folio-sized volume contains a brief survey of the history of Islamic calligraphy by Nihad M. Çetin and another short one by Derman on Ottoman calligraphy, but its glory is the nearly two hundred color plates accompanied by Derman's commentaries on the individual examples, drawn mainly from the extensive collections in Istanbul. It is particularly useful for Ottoman scripts and the process of making copies through stencils, and the commentaries combine a practitioner's knowledge and a keen eye with a grasp of the mainstream tradition in the central Islamic lands. It is, however, hard to find and expensive.

More visibly, IRCICA has also sponsored six international competitions on Islamic calligraphy (1987, 1991, 1996, 2001, 2002, and 2004), followed by catalogues of the winning entries. In order to encourage young calligraphers to follow the example of classical masters, each competition was dedicated to the memory of a famous calligrapher – Hamid Aytaç al-Amidi (d. 1982, one of the last calligraphers in the Ottoman line and the teacher of Hasan Chelebi, who in turn taught Mohamed Zakariya), Yaqut al-Musta'simi, Ibn al-Bawwab, Shaykh Hamdallah, Sayyid Ibrahim, and Mir 'Imad. More than five hundred calligraphers working in thirty-five countries have submitted entries for the various competitions in fourteen scripts: *jali* (large) *thuluth*, *thuluth*, *naskh*, *jali ta'liq*, *ta'liq* (the Persian *nasta'liq*), *jali divani*, *divani*, *kufi*, *muhaqqaq*, *rayhani*, *jaza*, *riq'a*, *maghribi*, and *khurda ta'liq* (the Persian *shikasta*). Each competition awards tens of thousands of dollars in prizes as well as incentives to encourage the training of younger calligraphers. Like the training in Turkey, the competitions organized by IRCICA emphasize the important role of copying, where repetition is favored over innovation.

Zakariya, who studied in Turkey under the auspices of IRCICA, has become the leading exponent of Islamic calligraphy in America today. A master woodworker, engraver, and machinist, Zakariya also designs and constructs functioning examples of antique-style clocks and scientific instruments. In addition to translating many of Derman's works, Zakariya himself has written brief overviews of the state of the art of calligraphy and its history that are notable in including samples penned by him of the various scripts based on historical examples.²⁵ He often gives demonstrations, workshops, lectures, and courses on calligraphy and has been commissioned to

Figure 13.5 Mohamed Zakariya: *Music for the Eyes*.
Ink on paper. 1314/1998.

Mohamed Zakariya is the foremost proponent of traditional Arabic calligraphy in America today. Trained in the Turkish system, he designed the labels and visual material to accompany the traveling exhibition of Ottoman calligraphy for the Sabanci Collection. He penned this phrase in *thuluth* for the cover of the accompanying brochure, *Music for the Eyes: An Introduction to Islamic and Ottoman Calligraphy*.



design the labels and signage for exhibitions in the United States and abroad. Given his training, it is no surprise that he favors the Turkish/Ottoman style. For him 'calligraphy is music for the eyes,' a phrase that he penned in 1314/1998–9 for the cover of a brochure designed to accompany the traveling exhibition of Ottoman calligraphy from the Sabanci Collection (Figure 13.5).

Zakariya's steady and balanced hand reflects his training. He penned the main phrase in a sober *thuluth jali* of the type used since the eighteenth century for panels or signboards (Turk. *levhalar*). Like the one designed by Mustafa Raqim some two centuries earlier (Figure 11.11), Zakariya's is executed in gold. The composition is balanced around the central upright of *lam* in *lil-'ayun*. In the baseline the curving tails of two *waws* frame the large tail of final *ya'* that encircles the central *lam*. The letters, including the vertical stroke for *lam* and the teeth in the other letters, are pitched slightly to the left, and the repeating curves in the baseline enhance the flowing movement. Spaces around the letters are sprinkled with diacritical marks and dots, also slanted to add a sense of motion. The stroke for *damma* is folded, with the short hook over the long downstroke, giving the impression that the letter was written from bottom to top, the opposite way that it is normally done. Most of these features are also found in Mustafa Raqim's composition.

Mohamed Zakariya's signature is similar to his predecessor's as well. Tucked into the bottom left, between the large bowls of *waw* and *nun*, it too is compiled in a triangle, as in a *tughra*, and contains the same formula, *katabahu muhammad zakariya* (Mohamed Zakariya wrote it). The first word is similar in both signatures, but compared to the fluid *tawqi'* with extra flourishes used by Mustafa Raqim for his name Raqim, Mohamed Zakariya uses a more upright

thuluth. The letters are ingeniously fitted together around the upstroke of the *dal* in *muhammad*, the same axis and organizing principle used for the main composition. This is the smooth and polished performance of a master craftsman.

Along with general concern for Islamic civilization, interest in writing Arabic script has also developed in Europe, particularly in London, home of many emigrés from the Islamic lands and center of the Islamic art market since the 1960s. The British Museum has become a hub for the study of modern calligraphy. In 1986 as part of a policy to stop its collections from stultifying in the nineteenth century and to represent and present the material cultures of the modern world, the museum began collecting contemporary art. To date, it has amassed the works of some sixty artists from the Islamic lands. It also mounted a small loan exhibition on writing Arabic that circulated within the United Kingdom as well as a more comprehensive exhibition, 'Mightier than the Sword: Arabic script; beauty and meaning,' that circulated internationally.²⁶

As part of its new mandate for community outreach, the British Museum has also underwritten supporting materials to teach Arabic calligraphy. In 2002, for example, it commissioned Mustafa Ja'far to write a small handbook teaching beginners to write *naskh*.²⁷ An artist and graphic designer, he studied calligraphy in Baghdad from 1969 to 1971 with the Iraqi master Hashim Muhammad and painting and design in Baghdad and Rome. Like Zakariya, Ja'far has conducted a number of calligraphy workshops and demonstrations. His handbook is devoted to *naskh*, the most traditional of the scripts and the one used most often to copy the Koranic text. He breaks down the course into three stages of single letters, joined letters, and words. The pages illustrating stage two, the joined letters (Figure 13.6), are inspired by the practice sheets known as *murakkabat*, with small notes added in the margins to elucidate his points. The course is simple and straightforward, with clear graphics designed and produced by the author's company MJ Graphics.

In addition, at the end of the handbook, Ja'far tried to break tradition and show how *naskh*, like *thuluth* and *divani*, can be expanded into individual compositions, using *naskh* to pen pithy quotations from classical scholars. As he himself states, the four pieces he illustrates are intended primarily as visual compositions, meaning that the formal aspects outweigh the semantic ones. These pages contrast with the final double page of his manual that contains samples of *naskh* past and present. They range from a page of Ibn Babawayh's *Kitab al-amali* that Muhammad ibn Asad (d. 1019), the teacher of Ibn al-Bawwab, transcribed at Baghdad in broken cursive (called *warraqi* or *naskh-iraqi* in the caption) to an Arabic desktop publishing font based on *naskh*. They show the script's versatility and its prime role as conveyor of information.

Another recent book by Gabriel Mandel Khan, *Arabic Script: Styles, Variants and Calligraphic Adaptations*, takes a different tack

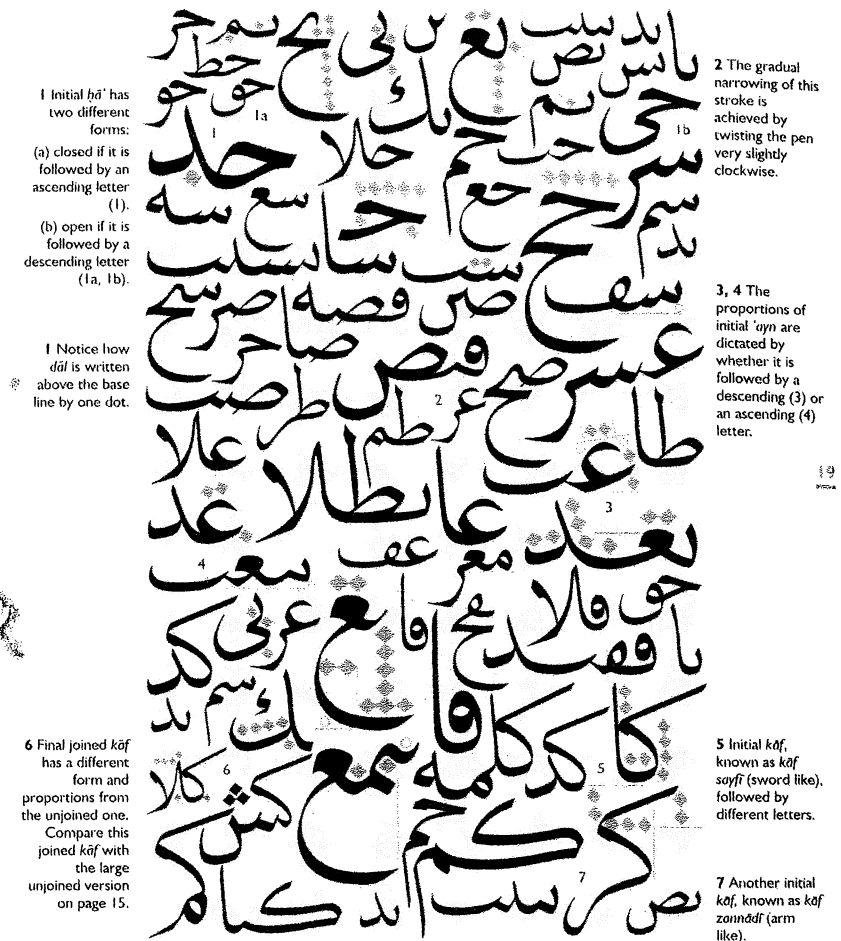
Figure 13.6 *Mustafa Ja'far: page of joined letters in the style of murakkabat, from his manual Arabic Calligraphy: Naskh Script for Beginners.*

At the request of the British Museum, the Iraqi artist and graphic designer Mustafa Ja'far produced a manual teaching beginners how to write *naskh*.

As in the modern Turkish system of calligraphic instruction, his course is divided into three stages: single letters, joined letters, and words. This page illustrating the second stage is inspired by the traditional type of exercise page known as *murakkabat*, with marginal notes added to clarify his points.

Stage Two: *Murakkabat* joined letters

This section is designed to show as many joined letters as a beginner should need to practise at this stage. To illustrate all forms of joined letters is beyond the scope of this manual.



The design of pages 19 to 21 is inspired by calligraphers' practice sheets known in Arabic as *tawīd* (blackening) and in Turkish as *karalama*.

and covers a broader range of scripts.²⁸ For each letter the alphabet, the author gives the independent form in thirty-three scripts arranged alphabetically from *alzarz* to *thuluth*, although the sources of both the scripts' names and the individual specimens are not given. The second half of the book contains specimens of many styles and variants drawn from a wide swathe of historical examples, ranging from early Koran manuscripts and inscriptions on 'Abbasid and Samanid ceramics to zoomorphic compositions or calligrams designed by contemporary artists. Like Zakariya and Ja'far, Khan himself is a calligrapher as well as an engraver and ceramicist, and his work shows the

prevalence of the Ottoman tradition in Europe. This is not surprising in his case since he studied with Fevzi Gunuc, a professor of calligraphy at the Seljuk University of Konya, and serves as an Italian official of the Helvati order, the popular Sufi brotherhood to which Shaykh Hamdallah had also belonged. The frontispiece in Khan's book reproduces a composition in *thuluth jali* by the Ottoman master Mustafa Raqim (for his work, see Figure 11.11), and many of the designs at the end of the book continue the calligrams popular with the Bektashi order in nineteenth-century Turkey.

The work of these modern writers and calligraphers shows how Turkish styles remain predominant today. This is true not only in Turkey and the Arabic world, but also in outlying regions, such as Western China and Indonesia as well as Europe and the United States, where artists of Turkish origin such as Feridun Özgören are applying traditional styles and techniques in new ways.²⁹ Born in a suburb of Istanbul in 1942 and trained as a statistician, in the 1970s Özgören came to the United States, where, having abandoned science for music and art in the 1980s, he produces large works of cut-out and marbled calligraphy.³⁰ Raised in Turkey after Atatürk's imposition of Roman script, Özgören was never taught to read or write Arabic, and the texts of his compositions are taken from models by famous Ottoman calligraphers or by famous Safavid calligraphers admired by the Ottomans. Virtually all are in *thuluth*. One copies the phrase about praising God penned c. 1550 in *musalsal* by Ahmad Karahisari on the left side of the double frontispiece to a manuscript of religious texts made for Sultan Sulayman (Figure 11.8), but renders the script and ground in various shades of indigo.³¹ Another copies the adage penned by Zayn al-Din Mahmud using a double intertwined script (Figure 10.17), but replaces the gold ground and black and ultramarine flower-filled (*gulzar*) letters with shades of purple and blue.³²

In addition to traditional styles of calligraphy, Özgören's work incorporates several traditional techniques. The large size of the works is derived from the large-scale panels produced under the Ottomans since the eighteenth century (Figure 11.11). Özgören's works are even bigger: his compositions typically measure 102 × 65 cm, dimensions determined by the size of the tray in which he floats his paper, and some three to four times the area of the typical Ottoman panel. Özgören's technique of marbling was inspired by the works of the master Necmeddin Okyay, who was not only a calligrapher but also a marbler, using the block-out techniques developed in the Deccan in the early 1600s to render marbled calligraphy. Okyay was also responsible for the incorporation of flowers, primarily tulips, drawn directly in marbling.³³ Özgören, however, replaces the traditional medium preferred by Okyay with cut paper, therefore continuing the cut-out technique that had reached great heights at the Ottoman court of Sultan Sulayman in the mid-sixteenth century (Figure 2.7). Özgören's work thus combines traditional format, styles,

and techniques to create modern works of art, albeit with calligraphy of a somewhat old-fashioned and rigid aspect.

Printing, typography, and computer graphics

Another subject that continues to preoccupy both calligraphers and designers today is the problem of how to make Arabic-script type more aesthetically pleasing, or, to put it another way, how to reconcile the freedom and individuality of handwritten calligraphy with the strictures of mechanical typography, which itself has shifted rapidly in the last century from cold-metal type through linotype and monotype to computer-generated laser printing. As distinct from calligraphy, in which expression and effect are central, for typography, readability is primary and essential. But for many the quest for readability and ease of printing has meant the sacrifice of beauty, and designers today are confronting the question of how to use new media such as computer graphics to generate beautiful writing.

After sporadic earlier attempts (see Chapter 11), printing was introduced to the Islamic lands on a wide scale in the nineteenth century as part of the movement toward modernization and the renewal of literary and intellectual culture there.³⁴ The prime movers were *lithérateurs* who came from the old literary and scribal elite, but who evolved into the vanguard of the new culture. A good example is Faris al-Shidyaq, later known as Ahmad Faris Efendi, founder of al-Jawa'ib press in Istanbul.³⁵ Throughout his work Faris strove for high standards. As a scribe and collector, he was interested in establishing accurate texts, determined by collation and comparison of various manuscripts. For example, he included errata lists in his publications. Like his predecessor Ibrahim Müteferrika (Figure 11.5), Faris was also interested in physical presentation and tried to have his typeface reflect the best scribal norms of the day. In the 1830s, while working at the Malta Arabic Press, he had helped to design a new typeface, and the types used at the Jawa'ib press in Istanbul followed Ottoman scripts rather than the *maghribi* font used to print his autobiography in Paris, which had become a major center of Arabic printing by this time.³⁶

Faris, unlike other printers whose layouts and styles were modeled on traditional manuscripts, tried to incorporate and regularize typographical features. He abandoned, for example, marginal commentaries and glosses, introducing running heads, tables of contents, and title pages that included not only the title of the work but also the names of the author and press, the place and date of publication, and the number of the edition. His interest in readability is clear from his page layouts, whose wide margins and spacing make them easier on the eye. He also attempted to introduce Western-style punctuation, using paragraphs, commas, dashes, colons, exclamation marks, question marks, quotation marks, and periods, but this last innovation was a failure, for punctuation, which enhances quick readability and

mental scanning, was adopted only in the twentieth century. He also standardized bindings: many were cloth or roan with the title embossed in gilt on the front and the insignia of the press on the back. His books were, in short, harbingers of a new commodity culture.

Despite the attempts of people like Faris to adapt Arabic script to printing, many problems remained in composing Arabic script using metal type. It was time-consuming, for example, to insert the ligatures required between letters. There were also visual problems. When using cold metal type, the individual sorts are set side by side. It is impossible to overlap letters, a process known in typesetting as kerning, and the system creates small but noticeable gaps between letters that would be filled by the flow of ink in handwriting. Furthermore, line justification is possible not by extending the letter bodies themselves, but only by stretching a baseline stroke between letters.

Some, though not all, of the problems of printing were alleviated with the introduction of the linotype machine.³⁷ Introduced in 1884 and trademarked in 1900, it combined typesetting and typesetting. Rather than lifting and positioning the individual sorts by hand, the composer operates a keyboard which translates letters into metal types that appear as a bar. The linotype machine made typesetting not only more efficient but also cheaper as the bar or slug could be melted down and reused.

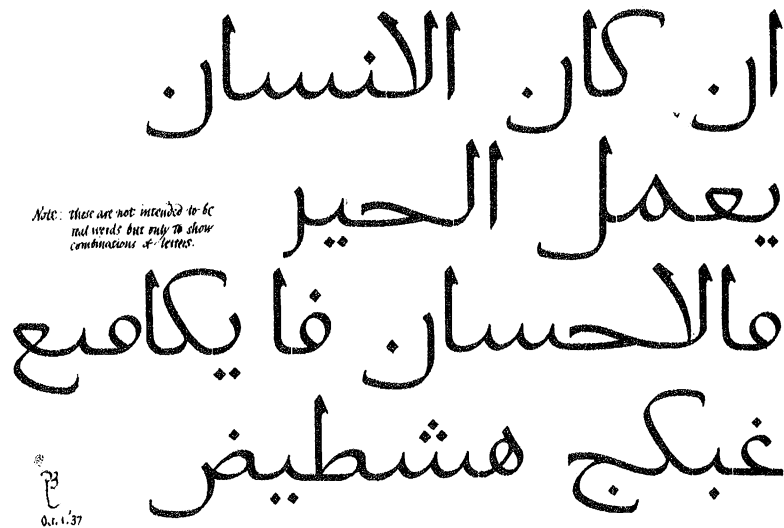
But the linotype machine creates its own set of problems. It is impossible, for example, to make corrections after a line has been cast. The smallest change, such as the addition of a vowel, requires resetting and recasting the line. The addition of three or four words means resetting the whole page. The limited space for matrices is also a major obstacle in view of the large number of type sorts needed for the different graphemes in Arabic script. The first Arabic linecasting machine produced for linotype in 1911 had an unwieldy 180 keys. The number was subsequently reduced to 124 and then 90 keys, but with concomitant loss of elegance.³⁸

In the twentieth century various attempts were made to overcome the problems associated with setting Arabic script on a linotype or monotype machine. Some people advocated abandoning the Arabic alphabet. This happened not only in Turkey under Atatürk, but elsewhere as well. Wilhelm Spitta, the German Orientalist who served as director of the Khedieval Library in Cairo, for example, attempted to create an Arabic alphabet based on Roman letters.³⁹

Others tried to develop new typefaces with a limited number of letters that could be handled by linotype and monotype machines. In the 1930s, for example, the British Government Printing Office in Jerusalem commissioned the British artist Eric Gill (1882–1940) to design an Arabic font.⁴⁰ Gill, who trained as a sculptor and artist, already developed an interest in stone lettering in the last years of the nineteenth century while a student at Chichester Technical and Art School.⁴¹ Influenced by William Morris, Gill founded an artistic

Figure 13.7 Final drawing of Eric Gill's Arabic typeface submitted to Sir Arthur Wauchope, British High Commissioner in Palestine, on 1 October 1937.

A sculptor and type designer, Eric Gill was commissioned to develop an Arabic typeface with a limited number of letters that could be used on linotype and monotype machines. In the design he submitted to Sir Arthur Wauchope, Gill adapted the individual letter forms and pasted them together in words and pseudo-words to show how the letters could be combined. Although well suited for type, his design met with resistance from calligraphers, and it was the only one of his many designs that was never cut into type.



community at Ditchling in Sussex, where he encouraged craftsmen to pursue their skills in engraving, calligraphy, weaving, stone-carving, building, printing, and other crafts. He himself was a prolific artist, producing over a thousand engravings as well as highly original typefaces like his 1927 Gill Sans that had a lasting influence on twentieth-century printing.

In the 1930s Gill was brought to Jerusalem to carve the sculptures for local buildings, including the Rockefeller Museum and St John's Hospital. While there, he became interested in the inherent typographic complexities posed by Arabic, and encouraged by Sir Arthur Wauchope, British High Commissioner, he developed a project to design a new typeface. Gill began by sketching the individual letter forms and then reworking their shapes to fit the exigencies of type. For example, he extended the tails on some letters, shortened the descenders on others, reduced the size of *alif*, and adapted hanging calligraphic flourishes to serifs. He then penned the individual letter forms on a page, from which he carefully cut-out pieces which he rearranged into words to show how the letters could be combined. His final sheet (Figure 13.7), with words and pseudo-words in Arabic all carefully and evenly blackened in ink, is dated 1 October 1937 and signed GE, the initials reading from right to left, mimicking the direction of Arabic script. In his own words, Gill's intent was to create not 'imitations of Arabic handwriting,' but 'to reconcile the written forms of Arabic letters with the exigencies of printing type.' He took inspiration from the local milieu. His most important source was the alphabet used in the mosaic inscriptions in the Dome of the Rock (Figure 3.7), a building that was the most beautiful, civilized, cultured, and spiritually pervaded place he had ever seen.

Despite his efforts, Gill's Arabic typeface is the only one of his many designs that was never cut into type. There are several reasons

مصر سوريا لبنان العراق باكستان
 مصر سوريا لبنان العراق باكستان
 مصر سوريا لبنان العراق باكستان

for this lacuna, notably its appearance. It is frankly ugly, with awkward angles adapted from the squareness of epigraphic designs and ungainly proportions. The designer himself anticipated that some would object to 'the ancient and beautiful Arabic writing being thus coerced into what will seem to them a wickedly mechanical mould.' Indeed, traditionalists such as Moustapha Ghozlan Bey, private calligrapher to the King of Egypt, despised the new typeface. Adapting what was to them the sacred art of handwritten calligraphy to the requirements of mechanization seemed virtually immoral. Emmeshed in the calligraphic tradition, some traditionalists refused to face the requirements of casting type. Political events intervened as well. In the spring of 1938, Wauchope left office and the new commissioner had to address more pressing problems in Europe. Gill died in 1940, but in his studio he left a typewriter converted to Arabic, a legacy of his interest in Arabic type.

Still others tried to reform the Arabic alphabet itself.⁴² Between the early 1930s and the late 1960s, the Academy of the Arabic Language in Cairo invited proposals to make reforms such as reducing the number of individual forms of a particular letter, eliminating diacritical marks, including short vowels as extra letters, normalizing letter forms, and augmenting the central height (the equivalent of the x-height in Roman fonts). The most radical proposal was that put forward in 1947 by the Lebanese graphic designer Nasri Khattar, who had studied art at the Yale School of Art and Design in Switzerland. He advocated creating a type system called Unified Arabic based on the one-form-per-letter principle, with independent letter forms, reduced ascender and descender heights, and enlarged x-height (Figure 13.8). His system was in line with the sans-serif fonts popular at that time to enhance visibility in small sizes (8-point and less). Such fonts, it was argued, would not only speed up typesetting, but make it easier to learn and write Arabic. His system too was never accepted. Though legible, it is awkward, additive, and flat, altogether a striking reminder of the pre-eminent role of flexible ligatures in the appearance of Arabic script.

Less radical was the proposal put forward by Roberto Hamm, a professor of typography and visual communication at the École des Beaux Arts in Algeria. He advocated a gradual modification of Arabic

Figure 13.8 *Nasri Khattar, Unified Arabic font system, designed c. 1956.*

Another avenue to reconcile the demands of Arabic script with typography was to reduce the number of letter forms. The Lebanese designer Nasri Khattar developed this font on the principle of one form per letter, using independent letter forms. Like Gill, he reduced the heights of the ascenders and descenders and enlarged the x-height of the letters to make the script more graphically readable. His system, too, was never accepted.

fonts by reducing all Arabic letters to two shapes, one for the initial and medial forms and a second for final and independent forms.⁴³ His new designs were based on the geometric structure of kufic in combination with the commonly used fonts for *naskh*. Like Khattar, Hamm decreased the size of ascenders and descenders and created a strong baseline with minimum variation in proportions, thereby reducing the irregular and airy quality often found in Arabic calligraphy. His approach was transitional from calligraphy to typography in that it maintained the calligraphic connection between letters. It is still used as the common standard in contemporary digital designs for Arabic type. Given its modernist tone of a universal design, his approach was never accepted, but as AbiFares points out, it was nevertheless important in analyzing the problems of converting Arabic letter forms to type, developing strategies to adapt Arabic type to modern industrialized technologies, and calling for a demarcation between calligraphy and typography.⁴⁴

Many of these modernist attempts at systems of printing Arabic script were rendered moot by the advent of digital technologies, as computers and desktop publishing solved some of the traditional dilemmas of Arabic typesetting.⁴⁵ Gaps between connecting letters can be filled, ligatures and extenders can be inserted automatically, and letters can overlap without the physical block of metal type. Yet the early implementation of Arabic script on computers met with limited success, because it was often added onto a system that operated primarily with Roman character coding. The situation changed in 1986 with the introduction of the Arabic Macintosh. A milestone in Arabic computing, it took the approach of layering Arabic language support over the pre-existing Mac operating system using a new operating feature called Worldscript. Unlike previous attempts, there was a thorough interface with Arabic, compatible with all Mac software.

Since then, there has been a virtual revolution in the software for designing, displaying, and printing fonts that cater to complex tasks using a variety of writing systems and scripts. These technologies are far more flexible and adaptable to various cultural needs. Some fonts attempt to re-create traditional Arabic calligraphy. In 1996, for example, DecoType, Designers of Computer-Aide Typography, introduced a font design and software that allowed for the use of traditional calligraphic effects such as variable and alternate letter shapes, control of elongation (known today as *kashida* or *mashq*), swooping strokes, and extension of endings under the following word or phrases.⁴⁶ This font, trademarked as DecoType Professional *naskh*, was based on the design of an elegant *naskh* font for moveable type in 1866 by Qadi-‘askar Mustafa ‘Izzet, the renowned Ottoman calligrapher who had created the magnificent roundels in *thuluth jali* hung in the converted mosque of Hagia Sophia (Figure 11.12).

Yet Arabic typography has not boomed in the way that its Roman equivalent has, and in the eyes of many, Arabic font design has stagnated. Typography in the West has steadily adapted to new media:

العلم نور الجهل ظلام

العلم نور الجهل ظلام

scripts with thinner serifs were developed for finer machine-made papers, better designs were produced for display on computer monitors, and other changes were introduced to adjust to the change from photocomposition to laser printing. Many Arabic typefaces, by contrast, are digitalized versions of old metal typefaces reduced to a range of sizes that the computer can accommodate easily. For many people like the Israeli graphic designer Habib Khoury, computers simply perpetuate stylistic issues unresolved since the beginning of printing.⁴⁷

Huda Smitzhuijzen AbiFares, professor of graphic design at the American University of Beirut, has drawn attention to some of the aesthetic and practical problems that still remain in the design of Arabic type.⁴⁸ In general, designs lack variety. Many typefaces do not distinguish between text and display scripts, using the same font, typically based on *naskh*, for a variety of functions, with titles or captions merely in a larger or smaller scale of the same type. However, the original Arabic type, designed for at least a 13-point font, often loses detail and clarity when reduced to a small scale. Furthermore, the point size in Arabic type is often based on the letter *alif*, which is taken to correspond to the x-height in Roman fonts rather than the capital height. As a result, the Arabic text looks smaller and lighter than its equivalent size in Roman font, especially when the two types are used simultaneously. Numerals and punctuation marks are often treated as after-thoughts, not always in line with the rest of the design.

In many ways, the energy expended in trying to create an automated calligrapher might better be spent in developing better-quality Arabic typefaces that address the varying needs of modern printing, and in promoting standards that allow the Arabic alphabet to survive as a viable character set for the exchange of information in new electronic media. Most Arabic fonts, AbiFares and others argue, do not have a distinct visual character that can accommodate specific types of design applications. However, in a few cases, particularly designs for special large-scale projects or private clients, context and legibility are given high priority. One example is the font *al-Futtaim* (Figure 13.9) designed by Mamoun Sakkal.⁴⁹ Raised in Aleppo, he studied

Figure 13.9 Mamoun Sakkal: *al-Futtaim* font, 1990s.

Syrian-born Mamoun Sakkal is one of the most well-known designers of Arabic graphics in America today and is often commissioned to design signage and environmental graphics. As in many Arabic typefaces, for this one he shortened ascenders and descenders but also opened up forms, combining the fluidity and movement of calligraphy with the requirements of typography.

with the master calligrapher Ibrahim Rifa'i, but his interest in the study of Islamic arts in general, and calligraphy in particular, blossomed after he emigrated to the United States in 1978. He now works as a graphic designer, providing graphic and architectural design services, including calligraphic panels for mosques and other Islamic buildings in the US and abroad. His website lists other design possibilities that he offers, ranging from personal names and tattoos to fonts, computers, and publications.

Sakkal designed the font al-Futtaim to meet the needs of signage and environmental graphics as well as digital reproduction. Like designers before him, he shortened long ascenders and descenders. He also opened up the forms within letters. The result is a clear, sturdy, and highly legible script that still maintains something of a calligraphic feel. Its fluid line continues the calligraphic tradition, but it also hits a modernist note, striking a balance between pragmatic visual restrictions, aesthetic concerns, and creativity in design solution.

Designers have also used computer graphics to revamp traditional styles of calligraphy and epigraphy, especially the script known as square kufic (Pers. *banna'i* or *ma'qili*). Designed for brick architectural inscriptions in Iran at the turn of the eleventh to twelfth century,⁵⁰ it was also adapted for paper, as in the right side of the double frontispiece penned by Ahmad Karahisari c. 1550 (Figure 11.8) and its grid basis makes it of interest to those involved in computers and computer graphics. Sakkal used it to transcribe Sura 2:144, the verse that instructs Muslims to face Mecca when praying, in the shape of the Ka'ba. He discarded that design, however, as the text was too short, and redesigned it in bordered kufic by dividing the text into two equal sections and extending the vertical letters to form a balanced pattern of braided lines and stylized arabesque floral shapes. The resulting design *Turn Your Face* won the first place award for kufic in the Third International Calligraphy Competition sponsored by IRCICA in 1993.⁵¹ The symmetry of the general composition is enlivened by the variations that result from relating the different letters to the overall pattern, although the composition remains somewhat static.

Sakkal's interest in square kufic continues.⁵² He designed the graphics for Stephen Wolfram's recent book, *A New Kind of Science*, in which the physicist tried to replace the traditional method using mathematical equations to describe the natural world with a new way of looking at the universe based on general rules embodied in simple computer programs. Wolfram used his approach to tackle an array of fundamental problems in science, from the origins of apparent randomness in physical systems to the development of complexity in biology, the ultimate scope and limitations of mathematics, the possibility of a fundamental theory of physics, the interplay between free will and determinism, and the character of intelligence in the universe. To show how these simple rules can produce behavior of great complexity, Wolfram illustrated sixteen examples of ornamen-

tal art ranging in date from Paleolithic times to the fourteenth century.⁵³ One of these, he notes, is not abstract, but written in a highly stylized form of Arabic script: a stucco panel with blessings on the Fourteen Immaculates Ones used to decorated the south-west side of the iwan erected in the early fourteenth century next to the grave of the Sufi saint Pir-i Bakran at Linjan near Isfahan in Iran.⁵⁴ In the explanatory notes, Wolfram included several of Sakkal's designs illustrating the relationship between various Arabic scripts and square kufic.⁵⁵ They show that Arabic calligraphy and computer graphics continue to intrigue scientists as well as artists today.

Calligraphic art

In addition to refining traditional styles, artists are moving in new directions to stretch the aesthetic boundaries of Islamic calligraphy, seeking to expand the media and materials used to write calligraphy and the ways that it is integrated into artistic compositions. In general these works differ from traditional calligraphy in that the message is subservient to the formal qualities of the work of art. Writing can be the sole component, but artists often incorporate writing as part of a broader composition. Some artists are also transforming written forms into pseudo-scripts, intended to evoke the talismanic rather than the semantic properties of writing.

A good example of how calligraphers have transformed traditional Islamic calligraphy into art can be seen in the works of Osman Waqialla.⁵⁶ Born in 1925 in Rufa'a in the Sudan, he studied art there and in Britain. He trained as a calligrapher in Egypt with Professor Sayyid Ibrahim, from whom he obtained his license (*ijaza*). On his return to Khartoum, Waqialla taught and founded his own studio. Along with Ibrahim al-Sayyidi, Waqialla was an active member of the Sudanese art movement until 1967, when he emigrated to Britain. Renowned there as a calligrapher and artist, he was consultant calligrapher for the firm of banknote makers De La Rue and, like Zakariya in the US, has designed alphabets and visual materials for exhibitions. Like Derman, Waqialla is concerned with the calligraphic tradition of Arabic script and its history. He collects traditional materials and implements used in the Sudan. For example, he loaned the traveling exhibition on writing Arabic organized by the British Museum a writing board (*lawh*) that had belonged to his grandfather.⁵⁷

As well as a collector, Waqialla is an artist who uses calligraphic designs in his works of art that combine the traditional with the modern. In *Kaf Ha Ya 'Ayn Sad* penned in 1980 (Figure 13.10), he used the traditional materials of ink on parchment, though many of his other works are on paper.⁵⁸ The small (17 × 13 cm) composition comprises five of the letters that follow the basmala at the beginning of twenty-nine of the 114 chapters in the Koran. Known in Arabic as *fawatih* or *awa'il al-suwar* (openers or beginnings of the chapters) or

Figure 13.10 *Osman Waqialla:*
 Kaf Ha Ya 'Ayn Sad, 1980.
 Sudanese-born, Egyptian-
 trained, and now London-
 based, Osman Waqialla
 combines traditional
 techniques in modern forms.
 In this stunning composition
 with the mysterious letters
 from the beginning of Chapter
 29 (Surat Maryam) of the
 Koran, he adapted the
 traditional *tughra* in *thuluth*
 script.



al-huruf al-muqatta'at (the disconnected letters) and in English as the mysterious letters, they have baffled scholars from early Islamic times.⁵⁹ Both their presence and their function are still unexplained. Some have seen them as redactions used in the arrangement of the *suras* in descending length, others as abbreviations for the basmala, the divine names of God, or the names of the specific individuals consulted in reading the text. Equally unexplained is the fact that they comprise all the graphemes of the earliest Arabic script.⁶⁰

These mysterious letters are believed to have magical powers and are often found on amulets. The ones penned here by Waqialla are found at the beginning of Chapter 19 (Surat Maryam), whose text begins with a mention of the Lord's mercy to his servant

Zakariya, father of Yahya (John the Baptist) and uncle of Maryam (the Virgin Mary). To increase readability and help the viewer grasp the content of the text, Waqialla has written the letters in a line as they would be transcribed at the beginning of the chapter in a manuscript or printed copy of the Koran. These letters run horizontally across the composition in two sizes of *thuluth* inside the bowls of *kaf* and *sad*. Arched diacritical marks flutter like birds above the lines of text.

The main part of the composition consists of the same letters, written in their independent forms in a magnificent *thuluth jali*. In composition, Waqialla is playing with the traditional pyramidal arrangement of the *tughra* (Figure 11.16), which is based on the *thuluth* script also used since the eighteenth century for the signboards and pointed with the same rhomboidal dots (Figure 11.11). Here, however, the letters in the pyramidal pile read downwards from the top right, unlike the traditional *tughra*, which reads upwards from the bottom right. Similarly, the curved stroke at the top of 'ayn at the upper left reverses the S-shaped strokes found at the top of the *tughra* and known in Turkish as *zülfe* (lock or tress).

Waqialla surrounded the large calligram with the verses from the beginning of the chapter, written in a smaller *naskh*. The text begins at the top right, with the basmala descending along the curved stroke connecting at the top of the large 'ayn. He stretched out the basmala so that the mysterious letters *kaf-ha'-ya'-ayn-sad* fall vertically in the center of the composition just above the thick elongated bar formed by the returning tail of *ya'*. They are thus perpendicular to the same words twice written horizontally below. The opening words of Chapter 29 continue horizontally below the bar and follow around the other letters. The circles used since earliest times to mark the ends of individual verses immediately identify this text as Koranic to any viewer familiar with the holy word. The serpentine movement of the text enhances the curvilinear shape of the large *thuluth* letters and creates an impression of shadow. Whereas calligraphy is traditionally meant to be immutable and hence often static, this composition is dynamic and evokes the magical and mysterious power of God. Waqialla calls upon traditional values of symmetry, balance, and modulation, but heightens the tension between thick and thin. For example, he plays on the formal qualities of line by stretching out the bowl of the *lam* in *qala* to a hairlike stroke that stretches all the way across the body of *kaf* in the larger example of the mysterious letters written in the bottom center of the composition. There is a play between meaning and form, between the rebus of puzzling out the letters and their mysterious overtones.

With its readable text of several sentences, Waqialla's *Kaf Ha Ya 'Ayn Sad* uses a traditional text – verses from the Koran. Other artists, such as the Egyptian-born Ahmad Moustafa (b. 1943), take a similar approach, using verses from the Koran and other traditional texts to create works of art in other media. Moustafa's interest in tradition

results in part from his background as both artist and art historian.⁶¹ Trained as a painter and printmaker, he earned a Ph.D. in 1989 from St Martin's College of Art and Design in collaboration with the British Museum. His doctoral dissertation dealt with the proportional script of Ibn Muqla, and his reconstructions have been reproduced in articles on the history of calligraphy.⁶²

Many of Moustafa's works involve well-known Koranic passages about God's omnipotence and power.⁶³ Whereas pre-modern calligraphers had transcribed the entire text of the Koran or major parts of it, he concentrates on single verses or passages. At first, he transcribed these directly across the flat surface playing with various scripts silk-screened in different colors. His 1976 *Scriptural Fugue*, for example, renders the letters of the word *allah* (God) in overlapping *thuluth* letters of green, gold, and black.⁶⁴ Many of his designs make reference to historical examples. In his 1977–8 *Perspective of the Bismillah*, for example, he inscribed the opening chapter of the Koran, the Fatiha, in square kufic letters set in a large rectangular panel that recalls the stucco examples from the fourteenth-century shrine of Pir-i Bakran that inspired graphic designers.⁶⁵ His 1977 *The Heart of Sincerity* takes the letters from Chapter 112 and rearranges them to form a composition of two tomes leaning against one another.⁶⁶ The mirrored arrangement recalls the mirror writing script used in Ottoman times, with the knotted *waws* echoing the calligraphic faces beloved by Bektashis.

In the 1980s Moustafa moved in a new direction, depicting three-dimensional geometric forms on a flat surface. Some show geometric solids. *Still Life of Qur'anic Solids*, an oil and watercolor on handmade paper done in 1987, for example, displays pyramids and spheres inscribed with Koran 54:29 set on a floor composed of repeated triangles with Koran 3:2 in square kufic. Others represent the inner view of the same geometric forms. *God is the Light of Heaven and Earth*, done in the same media and year, has the Light Verse (Koran 24:35) inscribed on the walls of a rectangular box open at the top to reveal the sky above.⁶⁷ The three-dimensional shapes and the spaces they enclose are intended to reinforce the meaning inherent in the Koranic texts: God's solidity and power in the first case, His power of divine revelation (or, more precisely, illumination) in the second.

Other works by Moustafa like *The Attributes of Divine Perfection* combine inscribed ground and solid and a variety of texts written in different scripts.⁶⁸ In addition to the Throne Verse (2:255) written in square kufic in the background, it is inspired by Koran 17:110, a verse that mentions God's most beautiful names (*al-asma' al-husni*). These names were quickly said to number ninety-nine. One of Muhammad's companions, Abu Hurayra, already transmitted a hadith saying that God had ninety-nine names, a hundred less one, for He, the odd number (the Unique) likes [to be designated by these enumerated names] one by one and whoever knows the ninety-nine names will enter paradise.⁶⁹ The repetition of these ninety-nine

names became one of the most diligent devotions in Islam. Pious Muslims repeat them and meditate on them, often with the help of beads strung together like a rosary (*subha*), and Sufis include them as part of the *dhikr*, or recitation. During the age of empires, these names were inscribed on amulets and talismans, often arranged in a magic square.⁷⁰ Going one step further, Moustafa set the divine names in a cut-away cube. The cube itself has become one of Moustafa's favorite motifs, representing multiplicity in unity. Borrowing from photo-realism, Moustafa's compositions are sharp-edged and taut. They are widely recognized for their virtuosity: to Wijdan Ali, these scriptural landscapes are modern classics,⁷¹ and his 1990 exhibition at the Royal College of Arts was the first devoted to the work of an Arab artist.

Moustafa's work in the 1980s exemplifies the desire to move calligraphy into three dimensions. Other artists go one step further and create sculptural calligraphy. One of the first to do so was the Iranian sculptor, writer, and collector Parviz Tanavoli.⁷² Born in Tehran in 1937, he was the first student to graduate from the new program in sculpture established at the College of Fine Arts of Tehran University. After studying in Italy, first at the Accademia di Belle Arti in Carrara and later in Milan, he taught both in Iran and abroad, where he was visiting artist at the Minneapolis School of Art (now the Minneapolis College of Art and Design) from 1962 to 1964. Returning to Tehran, Tanavoli became connected with the artistic movement known as the *Saqqakhana* (water fountain).⁷³ The name refers to the traditional type of public fountain offering fresh drinking water that is found in the older parts of many Persian towns. These humble charitable foundations, which often comprise a niche with a tank and a simple metal bowl, are dedicated to the memory of a Shi'ite martyr, usually the Prophet's grandson Husayn who was denied water at Karbala and whose portrait may be placed in the niche. Passers-by can not only quench their thirst, but also ask for fulfillment of a pious request after leaving a small votive gift, typically as a lock, attached to the grille around the fountain. The name *Saqqakhana* was coined because its artists, notably Hossein (now Charles-Hossein) Zenderoudi, pick up popular Iranian themes from folk art – carpet motifs, talismans, black-magic fetishes, charms, and amulets – and incorporate them in their compositions, which are typically executed in Western-inspired media such as collage and oil paint on canvas.⁷⁴

Tanavoli himself not only collected many of these metal objects but also made sculptures reminiscent of these religious shrines and related objects.⁷⁵ He has worked in a range of materials – from bronze, copper, brass, scrap metal to clay – and a range of sizes, from small-scale rings to large public sculptures measuring some three or four meters high.⁷⁶ His most famous theme is the sculptural representation of the word *hich*, the Persian word for nothing. In his original composition, first exhibited at the Borghese Gallery in Tehran in

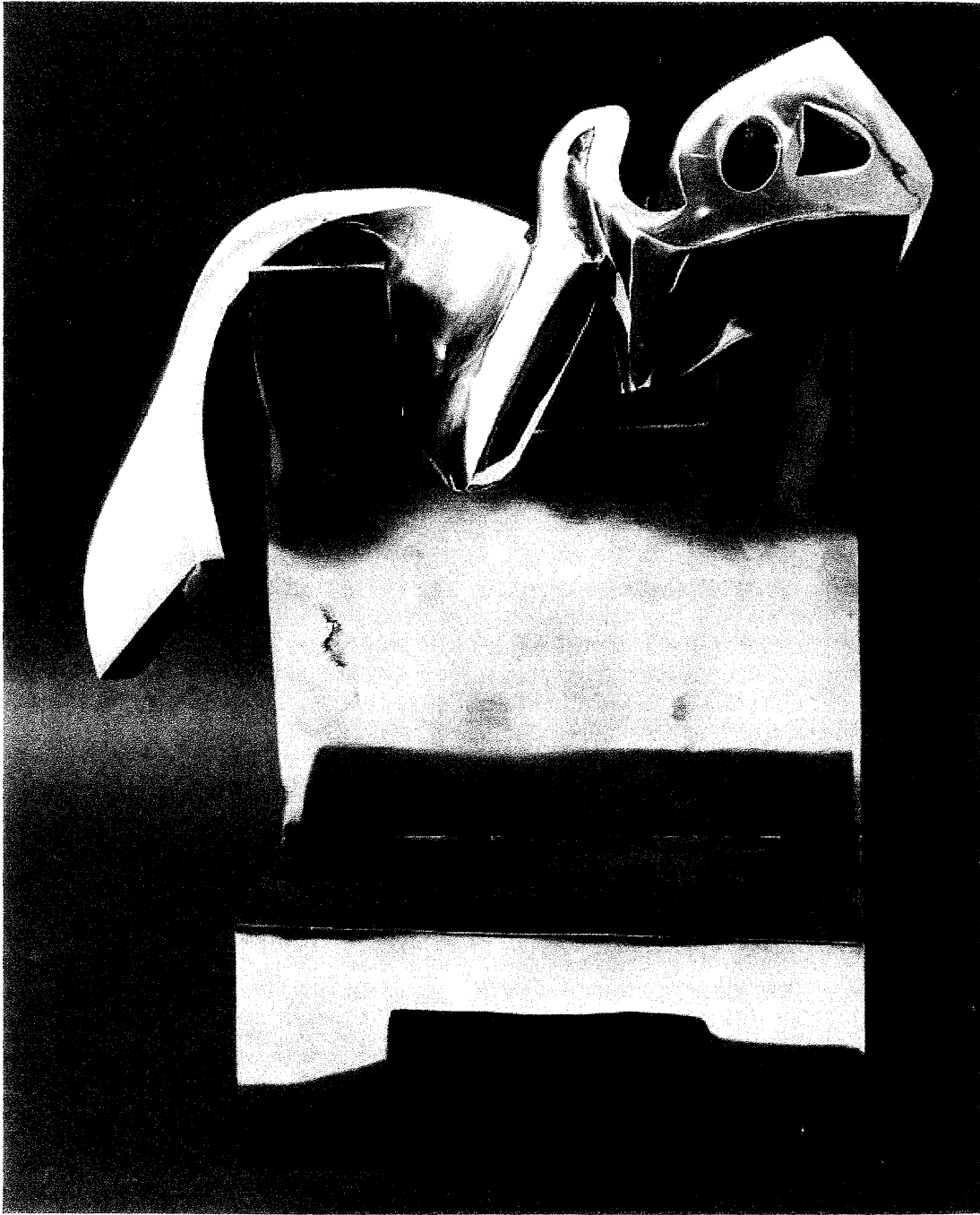
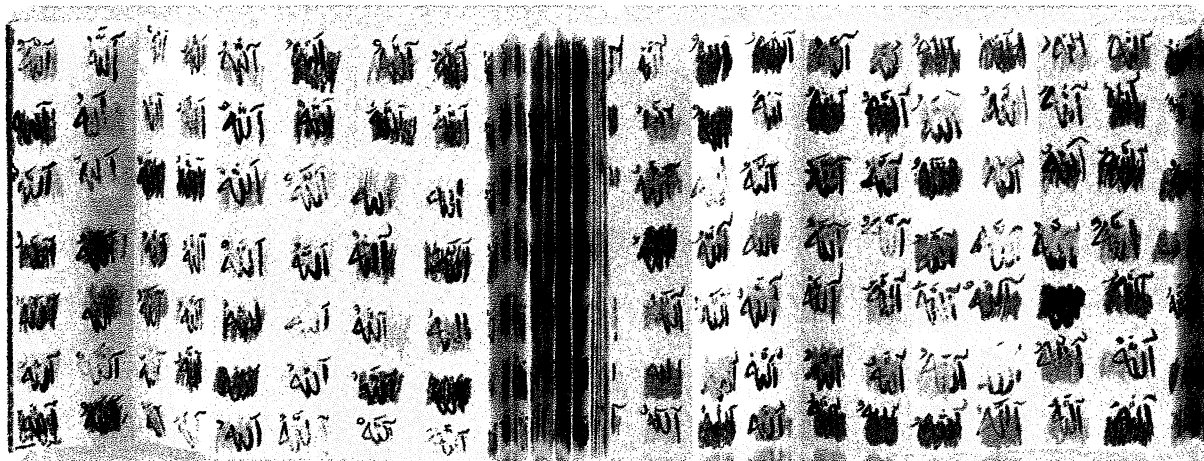


Figure 13.11 *Parviz Tanavoli: Heech and Chair II.*

The Persian artist Parviz Tanavoli was one of the first to make calligraphic sculpture. His most famous work involves the word *hich*, Persian for nothing. Here it is shaped in the form of a crouching cat, a visual pun as the letter *ha'* which forms the cat's head is known in Persian as the *ha'* of two eyes to distinguish it from other letters with a 'h' sound.



1965, plaster hands grasping a copper grille were surmounted by a plastic circle enclosing the word *hich* (nothing), shaped in Persian script. In later representations, the subsidiary elements were adapted or even dropped.

In his most popular version (Figure 13.11), the word *hich* is set on a chair like a crouching cat. The cat's head comprises the initial letter *ha'*, known in Persian as *ha'-yi du chashm* (the *ha'* of two eyes) to distinguish it from other letters with an 'h' sound. The form of the sculpture is thus a visual pun on the name of the letter. The cat's body is composed of the initial stroke of the final letter *cha'*, whose downstroke in the flowing *nasta'liq* script becomes the cat's long curving tail. As with Waqialla's work (Figure 13.10), there is a play between form and meaning, but Tanavoli's work (and text) is directed toward a distinctly secular audience. In contrast to the power of God invoked by Moustafa, for Tanavoli *hich* became the voice of protest, the nothingness of hope and friendship . . . nothing which brimmed with life itself.⁷⁷

Working words or phrases into a larger composition is a method used not only by Saqqakhana artists such as Zenderoudi, but by many other contemporary artists as well. The works of art that play most closely on the idea of writing and the book are those by the Lebanese-born artist and poet Etel Adnan (b. 1925).⁷⁸ Raised in Beirut, she is both a poet and a painter who now divides her time between California and Paris. Since 1964 she has been making 'artist's books' by folding rolls of Japanese paper like an accordion and decorating the pages with words and poems in Arabic script combined with watercolor paintings (Figure 13.12).⁷⁹ Typically, the word or verse is scribbled in black on top of various colored blocks in a combination of literature and visual art that recalls the Japanese tradition of the accordion book but with Arabic script. In this version done in 1987, she has repeated the word *allah* (God), written in a distinctly casual hand that varies from example to example. The roughness of the script is enhanced by the almost childlike scribble of the colored ground.

Figure 13.12 Etel Adnan: Allah.

The Lebanese artist Etel Adnan creates artist's books that combine word and image. She scribbles words, here the name of God, in a script that is definitely un-calligraphic, trying to re-create the fluidity of both writing and the turning of pages in a book. For the critic Wijdan Ali, this is calligraffiti.

Whereas Ottoman calligraphers tried to repeat the same form without variation (Figure 11.19), Adnan revels in the differences, underscoring the distinctly modern notion of individual creativity and expression.

In explaining her philosophy and method, Adnan noted she was trying to figure out the visual possibilities of manipulating words and letters given the elasticity of Arabic script.⁸⁰ Her script was, in her own words, extremely imperfect. It was purposely not calligraphic, ignoring the classical heritage based on the codification of scripts and the perfection of codified brushstrokes. Rather, she wanted the fluidity implied by both the writing and the experience of turning the pages in a book to transform 'those visual, written words and the paintings of which they are a part, into a kind of musical score that each person, including their maker, translated into his/her inner language, or languages, into that which we call understanding.' Wijdan Ali calls this calligraffiti, a term she coined for script that is written without the rules of proportion, with rough shapes that are close to graffiti scribbling.⁸¹ But just as graffiti has become art on the New York subway system, so here too casual Arabic writing has been transformed into a medium that captures the kinesthetic motion inherent in writing like Chinese calligraphy does.

Though intended to evoke movement and creativity, Adnan's words are still meant to be read. Other artists have moved a further step toward abstraction, producing works of art with pseudo-script that resembles writing but is not readable. The Tunisian Nja Mahdaoui (b. 1937), for example, often produces compositions with forms that resemble angular or rounded script.⁸² Trained at Carthage, Tunis, and Rome, he works in a variety of media and materials, ranging from the traditional combination of ink on parchment to silk screen on fabric, oil on canvas, and tapestries of polyester and wool. He even decorated the fuselage of airplanes to celebrate the fiftieth anniversary of Gulf Air. His silk-screened *Calligraphic Composition* shows yellow swooping curves set against a red rectangular block, itself jammed with tiny lines of small curving strokes.⁸³ This is a firman run amok.

Mahdaoui's *Calligrams* (Figure 13.13) is a vertical composition of ink on paper with another large rectangular block divided into stripes densely packed with strokes like writing.⁸⁴ The inspiration here is surely *tiraz*, the inscribed textiles traditional in the Islamic lands, but again transformed almost beyond recognition, certainly beyond legibility. The reference to writing is again invoked by bold black strokes, both curves and straight lines, that peek out behind the striped panel at the sides of the composition. The reference to writing is driven home by the rhomboidal dots and the serif at the top of the long vertical stroke. The combination of strokes at the left echoes the familiar shape of the word *allah*, but the group is missing one ascender and is therefore illegible. The curved tails at the right evoke the pincer-like projections extending to the right of the Ottoman *tughra*

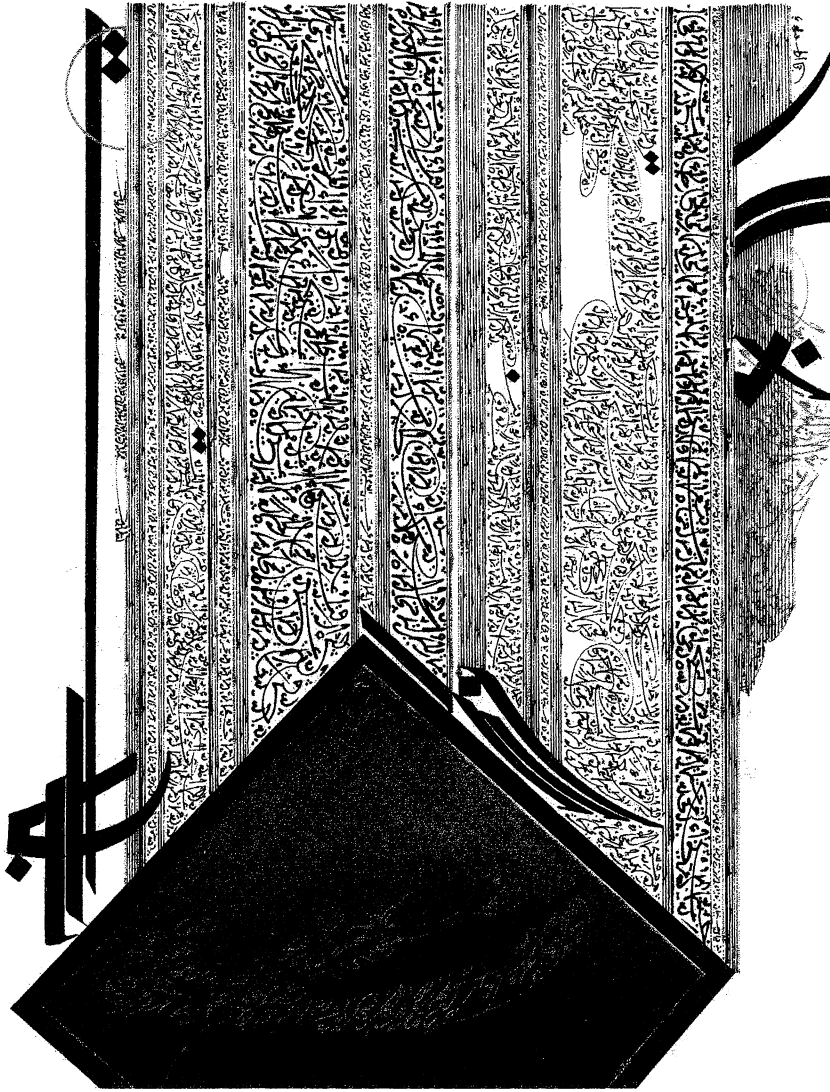


Figure 13.13 Nja Mahdaoui: Calligrams.

The Tunisian artist Nja Mahdaoui combines abstract forms reminiscent of calligraphy in his works of art made in many media from paper to fabrics and drums. This one done in ink on paper recalls *tiraz*, the inscribed textiles traditional in the Islamic lands, and the forms of the *tughra*, the sign emblem of the Ottoman sultans. But the calligraphic designs are subordinate to the rhythmic, even melodic flow of the design.

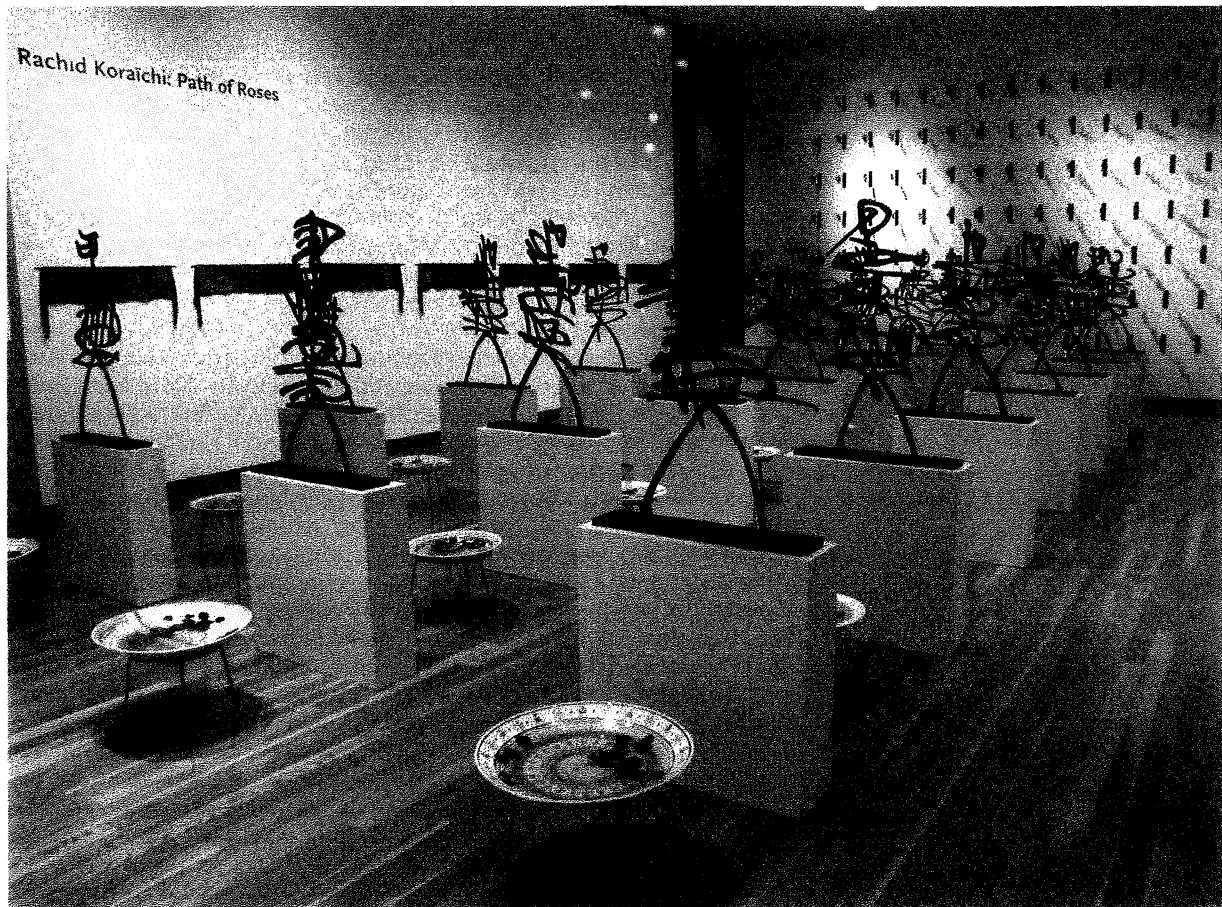
(Figure 11.16). Wijdan Ali calls such pseudo-calligraphy misleading,⁸⁵ but surely Mahdaoui's intention is not to create writing but to evoke its traditional role in many areas of North Africa, where it was often spoken rather than written.

Much of the work of the Algerian Rachid Koraichi also includes pseudo-writing, typically magic squares and pseudo-Chinese characters.⁸⁶ Although many of his motifs are inspired by writing, they are not readable in any language. Born in Algeria in 1947, he studied in Paris and now lives in Tunisia and is therefore conscious of the long artistic tradition of North Africa. He incorporates popular symbols and talismans in his work, much of which involves local craft traditions, from weaving and pottery to smithing. Some of Koraichi's work

is politically inspired. His prints and lithographs often revolve around the texts of popular poets such as the Palestinian Mahmoud Darwish, whose poem 'Beirut' was written during the 1982 Israeli siege of the city, or the Algerian Mohammed Dib, whose poem *al-Tifl jazz wa'l-harb* reflects on the vicissitudes of childhood and war. Koraichi never transcribes the poems in their entirety, instead selecting fragments which he repeats, reverses, or re-orient, often in mirror reverse. His work is also Sufi-inspired, and Koraichi credits his family with encouraging his mystical leanings. He prefers monochrome or bichrome to polychromy, typically contrasting black on white or gold on blue.

In the 1990s Koraichi worked in many separate media. Three series of ninety-eight amulets produced in 1994, for example, were tiny steel arrows engraved with pictograms. *Golden Bague*, one of a series of seven silk-screen banners made between 1993 and 1995, is decorated with pseudo-Chinese characters in gold on an indigo blue ground. Koraichi chose the colors as symbols: blue to represent the sky and gold to symbolize pure matter and royalty.⁸⁷ The combination of gold on dark blue also recalls the mosaic inscriptions from the Dome of the Rock (Figure 3.5), our first dated evidence for the writing down of the Koran. Koraichi arranged some ideograms in a grid recalling a magic square, evoking the same popular imagery used by Moustaфа, but set others in the shape of a barque, recalling Egyptian funerary papyri. Koraichi also plays with direction and mirror: his signature at the bottom of the banner, like many of his texts, is screened in mirror-reverse, though the date in numbers reads correctly. This arrangement is willful, for Koraichi believes texts should be written as if reflected in a mirror so that the meaning is veiled to those who do not understand. The artist is therefore a mediator and a mirror reflecting divine transcendence.

Koraichi has recently combined many of these individual works in multi-media installations that reflect his Sufi-inspired philosophy. His *Tariq al-Ward* (Path of Roses), presented in 2001 at the 49th Venice Biennial entitled *Authentic/Ex-centric* and exhibited at Herbert F. Johnson Museum of Art at Cornell University in Ithaca, NY, in the winter of 2002–3, is a collection of embroidered scroll-like silk banners, inscribed ceramic basins filled with rose water, and calligraphic steel sculptures mounted on the wall and on wooden blocks (Figure 13.14). According to the artist, the installation was intended to re-create the travels of the great Sufi Jalal al-Din Rumi across the continents, both literally and metaphorically. (See Figure 9.1 for the first clean copy of Rumi's text.) The basins, inspired by local pottery traditions and intended to evoke those used for ritual ablution, for example, are inscribed with quotations from Rumi. The twenty-eight free-standing sculptures, measuring a meter high, echo the twenty-eight letters of the Arabic alphabet.⁸⁸ In form, they evoke the Mawlawi order's whirling dervishes who dance to the music of time. In Koraichi's words, he seeks to create an 'alphabet of memory that



transcends the boundaries of space and time, in which the sacred and profane converge into one.' He has abstracted signs and writing, turning the alphabet into an aesthetic and ideological act.

This handful of examples shows some of the ways in which modern artists integrate Islamic calligraphy into their works of art. They illustrate the many media that artists are using to bring out different aspects of writing, ranging from its semantic and formal qualities to its talismanic properties. It seems to be difficult to indulge in such artistic expression in the traditional Islamic lands, as many artists have emigrated to Europe or the United States, not only for freedom of expression but also because that's where the market is. For those outside the Islamic tradition, the use of writing can at times seem heavy-handed and the symbolism rather blatant, but these works are instructive in charting new paths for an old field. Given the rapid spread of Islam (it is the world's fastest-growing religion), there is no doubt that this interest in Arabic calligraphy, ranging from its history to its applications in typography and art, can but grow in the twenty-first century.

Figure 13.14 *Rachid Koraichi: Tariq al-Ward (Path of Roses).*

Rachid Koraichi's recent work is a Sufi-inspired installation that combines embroidered tapestries, calligraphic steel sculptures, decorated ceramic basins filled with rose water, a series of prints, and scroll-like silk banners to create an 'alphabet of memory.'

Notes

1. For an eloquent description of the role of music in modern central Asia, see Theodore Levin, *The Hundred Thousand Fools of God: Musical Travels in Central Asia (and Queens, New York)* (Bloomington and Indianapolis, 1996).
2. See Chapter 11.
3. Wijdan Ali, *Modern Islamic Art: Development and Continuity* (Gainesville, FL, 1997), 131.
4. New sources of information are also available: the world-wide web. While the supporting material in the previous chapters was drawn largely from books, much of it in this chapter is taken from websites. Though convenient and timely, they are often ephemeral. Even in the time between writing a first draft and checking it, many have disappeared. Hence, I have tried to cite only those that I think will be around for a while.
5. Mir Munshī Qummī Qādī Aḥmad, *Gulistān-i Hunar*, ed. Aḥmad Suhayli-Khānsārī (Tehran, 1352/1974), 64–78; Qādī Aḥmad, *Calligraphers and Painters: A Treatise by Qādī Aḥmad, Son of Mir-Munshī (Circa AH 1015/AD 1606)*, trans. V. Minorsky, Occasional Papers (Washington, DC, 1959), 106–25.
6. Private collection; color reproduction in Ali, *Modern Islamic Art*, pl. 4, top. Born in Baghdad in 1939, Wijdan Ali received a degree in history from Beirut College for Women and a doctorate in Islamic art from the University of London, with a dissertation on modern Islamic art. Founder of the Royal Society of Fine Arts in Jordan (1979) and the Jordan National Gallery of Fine Arts (1980), she is one of the main authors and critics writing about modern Islamic art.
7. *Encyclopedia Iranica*, ed. Ehsan Yarshater (London and New York, 1985), ‘Ašūrā.’
8. Ali, *Modern Islamic Art*, 163.
9. See the biography in *Elr*, ‘Bayānī, Mehdi’. He came from a long line of chancery scribes and fiscal officers from Farahan. From childhood he received training in calligraphy, attending the Dar al-Funun, the arts school founded in Tehran in 1851 by Nasir al-Din Shah. He was also a scholar, receiving a doctorate in Persian literature from Tehran University in 1945. Bayani was the founder and first director of Iran’s first national library (Kitabkhana-yi Milli), and in 1956 was appointed head of the Royal Library (Kitabkhana-yi saltanati). He also taught courses on the development of Persian calligraphy and founded a society for the support and encouragement of calligraphers and the calligraphic arts (Anjuman-i himayat-i khatt va khattatan).
10. Mahdī Bayānī, *Aḥvāl wa āthār-i khushnivīsān: nasta’līq nivīsān*, 2nd edn. (Tehran, 1984).
11. This contrasts to the Mughal canon, as articulated by Abu’l-Fadl ‘Allami, in which *naskh* and its larger counterpart *thuluth* are said to have one-third curved and two-thirds straight. See Chapter 12.
12. Ghulam-Husyan Yusufi is the author of the article on ‘Calligraphy,’ in *Elr*, 4:680–718.
13. Again, this contrast to Abu’l-Fadl ‘Allami’s description of the Mughal hand, which he claims is entirely round.
14. Ḥabīballāh Faḏā’īlī, *Atlas-i khatt: taḥqīq dar khattūt-i islāmī* (Tehran, 1391, 1971), 603; Yūsufī, ‘Calligraphy,’ 698.
15. On animated script, see Sheila S. Blair, *Islamic Inscriptions* (Edinburgh, 1998), 114–16. The basic studies of the Bobrinsky Bucket

- and the Wade Cup are Richard Ettinghausen's two articles, 'The Bobrinski "Kettle": Patron and Style of an Islamic Bronze,' *Gazette des Beaux-arts* 6 sér., 24 (1943): 193-208; 'The "Wade Cup" in the Cleveland Museum of Arts: Its Origins and Decorations,' *Ars Orientalis* 2 (1957): 327-66.
16. Gülnar Duran, 'Derman Hoca'ya Armağan Olarak Hazırlanan İki Tezhibli Eser,' in *M. Uğur Derman 65 Yaş Armağanı*, ed. Irvin Cemil Schick (Istanbul, 2000), 45.
 17. Derman is the author of three books (*Türk Hat Sanatının Şâheserleri* [n.p., 1982]; *The Art of Calligraphy in the Islamic Heritage*, trans. Mohamed Zakariya and Mohamed Asfour [Istanbul, 1998]; *Letters in Gold: Ottoman Calligraphy from the Sakip Sabancı Collection*, Istanbul [New York, 1998]) and more than three hundred articles on calligraphy. His complete bibliography is available in Irvin Cemil Schick (ed.), *M. Uğur Derman 65 Yaş Armağanı* (Istanbul, 2000), 19-42.
 18. Schick (ed.), *M. Uğur Derman 65 Yaş Armağanı*.
 19. Carol G. Fisher and Alan Fisher, 'An Interview with M. Uğur Derman,' in *M. Uğur Derman 65 Yaş Armağanı*, ed. Irvin Cemil Schick (Istanbul, 2000), 47-57.
 20. Abu'l-Fadl 'Allami used this metaphor as well; see Chapter 12.
 21. 'Becoming a Calligrapher: Memoirs of an American Student of Calligraphy,' in *M. Uğur Derman 65 Yaş Armağanı*, ed. Irvin Cemil Schick (Istanbul, 2000), 63-72. See also the article on him by Piney Kesting, 'The World of Mohamed Zakariya,' *Saudi Aramco World* 43, no. 1 (January/February 1992): 10-17, available on-line at <http://www.saudiaramcoworld.com/issue/199201/the.world.of.moham.ed.zakariya.html>.
 22. Derman Collection; Mohamed Zakariya, *Music for the Eyes* (Los Angeles, 1998), fig. 7.
 23. See their website at www.ircica.org.
 24. Derman, *Art of Calligraphy*.
 25. *The Calligraphy of Islam: Reflections on the State of the Art* (Washington, DC, 1979); *Music for the Eyes*.
 26. The loan exhibition that traveled to Exeter, Bath, and Belfast was accompanied by a handlist: Venetia Porter, *Writing Arabic* (London, 1999). The international exhibition that traveled to Melbourne and Kuala Lumpur was accompanied by larger catalogues: Venetia Porter, *Mightier than the Sword: Arabic Script, Beauty and Meaning* (Melbourne, 2003); Venetia Porter and Heba Nayel Barakat, *Mightier than the Sword: Arabic Script: Beauty and Meaning* (Kuala Lumpur, 2004).
 27. Mustafa Ja'far, *Arabic Calligraphy: Naskh Script for Beginners* (London, 2002).
 28. Gabriel Mandel Khan, *Arabic Script: Styles, Variants and Calligraphic Adaptations* (New York, 2001).
 29. Samar al Gailani, (ed.), *Ebrû Art, Marble on Paper, the Work of Feridun Özgören* (Bahrain, 2001).
 30. Walter B. Denny, 'The Work of Feridun Özgören,' in *Ebrû Art, Marble on Paper, the Work of Feridun Özgören*, ed. Samar al Gailani (Bahrain, 2001), 17-43, gives details about Özgören's working methods.
 31. Al Gailani (ed.), *Ebrû*, 33, color pl. 1.
 32. Al Gailani (ed.), *Ebrû*, 33, color pl. 2.
 33. E.g., the album in the Sabancı Collection (no. 381); Derman, *Letters in Gold*, no. 60.
 34. For a short introduction to the subject, with extensive bibliography, see the article on 'Printing in the Islamic lands' by the expert in the field,

- Geoffrey Roper in Jane Turner, (ed.), *The Dictionary of Art* (London, 1996), III (8) iii. For a fuller treatment, see Dagmar Glass, Geoffrey Roper, and Hrant Gabeyan, 'Arabic Book and Newspaper Printing in the Arab World,' in *Middle Eastern Languages and the Print Revolution, a Cross-Cultural Encounter, a Catalogue and Companion to the Exhibition*, ed. Eva Hanebutt-Benz, Dagmar Glass, and Geoffrey Roper (Westhofen, 2002), 177–226.
35. Geoffrey Roper, 'Fāris al-Shidyāq and the Transition from Scribal to Print Culture in the Middle East,' in *The Book in the Islamic World: The Written Word and Communication in the Middle East*, ed. George N. Atiyeh (Albany, NY, 1995), 209–31. Born to a Maronite family in Lebanon in the first decade of the nineteenth century, he grew up in a literary household. Following family tradition, he became a professional copyist, transcribing, for example, registers and chronicles of a local amir for his composite history of Lebanon and the region as well as other Christian works. Faris worked in Malta and Egypt before ending up in Istanbul, where he founded al-Jawā'ib, a press that published classical Arabic literature, contemporary writing (including his own), and semi-official Ottoman publications. When he died in 1887, he was one of the foremost editors and publishers of his age.
 36. To meet the increasing interest in the Orient, culminating in Napoleon's expedition to Egypt in 1798, typographers at the Imprimerie Royale in Paris had amassed a substantial collection of Western-designed Arabic type under the supervision of Baron Antoine-Isaac Silvestre de Sacy (1758–1838), who had been appointed professor at the newly formed École des Langues Orientales in 1795. For details, see *Les Caractères de l'Imprimerie nationale* (Paris, 1990). Many fonts were imported from Italy: in 1798 the ones used in the Printing Office of Propaganda in Rome were brought to Paris, followed in 1811 by those from the Medici Oriental Press in Florence, including the *naskh* designed by Robert Granjon in 1586 and used for the first printed edition of the medical treatise by Ibn Sina (Avicenna). Granjon's new fonts represented a major improvement in elegance and legibility. See Geoffrey Roper, 'Early Arabic Printing in Europe,' in *Middle Eastern Languages and the Print Revolution, a Cross-Cultural Encounter, a Catalogue and Companion to the Exhibition*, ed. Eva Hanebutt-Benz, Dagmar Glass, and Geoffrey Roper (Westhofen, 2002), 1, for a case layout of one of Granjon's fonts. Their calligraphic quality was enhanced by the liberal use of ligatures, which in turn necessitated very large fonts and complex case layouts. Other new and artistic or specialized fonts were designed in Paris. In 1806, for example, Renard designed kufic and Qarmathian kufic fonts, and in 1846 Marcellin Legrand designed a new *maghribi* font. The variety of types used attests to the burgeoning interest in Orientalism and Arabic texts in Paris and its emergence in the nineteenth century as a center for Arabic printing.
 37. For a general description, see *The Encyclopedia Britannica*, 11th Ed. (New York, 1910), 27:345; Turner, *DoA*, 'Printing 2. Origination of the image.'
 38. See the interesting appendix by Hrant Gabeyan, a (and probably the last) linotype salesman in the Middle East, in Eva Hanebutt-Benz, Dagmar Glass, and Geoffrey Roper (eds), *Middle Eastern Languages and the Print Revolution, a Cross-Cultural Encounter, a Catalogue and Companion to the Exhibition* (Westhofen, 2002), 216–21.
 39. Daniel Willard Fiske, *An Egyptian Alphabet for the Egyptian People* (Florence, 1897).

40. Gregory Graafls, 'Gill Sands,' *Print* 52, no. 3 (May-June 1998): 108-11 and 126.
41. For a review of Gill's output, see Turner, *DoA*, 12:631. He also had a bizarre personal life; the steamy details are recounted in his biography by Fiona MacCarthy, *Eric Gill: A Lover's Quest for Art and God* (New York, 1989).
42. Huda Smitshuijzen AbiFares, 'Arabic Type: A Challenge for the 2nd Millennium,' *Baseline International Typographics Magazine* 26 (1998).
43. Roberto Hamm, *Pour une typographie arabe* (Paris, 1975).
44. AbiFares, 'Arabic Type.'
45. Some aspects of the interface between computers and Arabic script are discussed in Pierre Mackay (ed.), *Computers and the Arabic Language* (New York, 1990).
46. AbiFares, 'Arabic Type,' fig. 9.
47. Gregory Cole, 'Toward a New Arabic Typography,' *Print* 52, no. 3 (May/June 1998): 112-15, 126.
48. In addition to AbiFares' article, 'Arabic Type,' see her recent book, *Arabic Typography: A Comprehensive Sourcebook* (London, 2001).
49. Information about it and him are available on his website: <http://www.sakkal.com>.
50. Blair, *Islamic Inscriptions*, 82-9.
51. Reproduced at <http://www.sakkal.com/TurnFace.html>.
52. His compositions are often published; see, for example, his *Steps and Shadows*, a computer-assisted graphic based on the profession of faith, illustrated in Markus Hattstein and Peter Delius (eds), *Islam: Art and Architecture* (Cologne, 2000), 598; Malise Ruthven and Azim Nanji (eds), *Historical Atlas of Islam* (Cambridge, MA, 2004), 194.
53. Stephen Wolfram, *A New Kind of Science* (n.p., 2002), 43.
54. The shrine at Linjan contains such two plaques: the one on the south-west contains blessings on the Fourteen Immaculate Ones beloved by Shi'ites ('Ali, his daughter Fatima, and the Twelve Imams); the one opposite on the north-west contains the Throne Verse (2:255). Both are illustrated in black and white in Derek Hill and Oleg Grabar, *Islamic Architecture and its Decoration* (Chicago, 1964), 291-2.
55. Wolfram, *A New Kind of Science*, 873-4.
56. For a biography, see Lee Adair Lawrence, 'Letter, Word, Art,' *Saudi Aramco World* 48, no. 2 (March/April 1997): 32-43, available on-line at: <http://www.saudiaramcoworld.com/issue/199702/letter.word.art.htm>.
57. Porter, *Writing Arabic*, 11. This tablet is still used by children, particularly in Africa, to read and memorize the Koran. Its curved base allows it to be positioned in the lap of a child seated cross-legged on the ground, while being gripped at top. In a society where paper is still prohibitively expensive, the board can be wiped clean for each new lesson. The water used to wipe the board is collected in a gourd called *mihaya*, from the Arabic verb to wipe out. As the water is believed to contain the words of God, it was regarded as efficacious against many afflictions.
58. London, British Museum, 1998.0716.01; Porter, *Writing Arabic*, III.2; *Mightier than the Sword*, 53; Porter and Barakat, *Mightier than the Sword*, no. 96.
59. *The Encyclopaedia of Islam, New Edition*, ed. H. A. R. Gibb and others (Leiden, 1960), 'Kur'an. 4d'; *Encyclopaedia of the Qur'an*, gen. ed. Jane Dammen McAuliffe (Leiden, 2001), 3:471-7, 'Mysterious letters.'
60. As Keith Massey (*EQ*, 'Mysterious letters') points out, there are eighteen graphemes in Arabic (*alif*, *ba*, *jim*, *dal*, *ra*, *sin*, *sad*, *ta*, *'ayn*, *fa*, *qaf*, *kaf*, *lam*, *mim*, *nun*, *ha*, *waw*, and *ya*) but only fifteen in non-final

- position, for *ba'*, *nun*, and *ya'* are identical as are *fa'* and *qaf*. The fourteen letters making up the mysterious letters represent every consonantal form in early Arabic script, in which *waw*, *fa'*, and *qaf* were the same grapheme as were *dal*, *dhal*, and *kaf*.
61. Short biography in Ali, *Modern Islamic Art*, 199–200. See also his website: <http://www.fenoon.com/portfolio/portfolio.html>.
 62. One page is reproduced, for example, in Priscilla P. Soucek, 'The Arts of Calligraphy,' in *The Arts of the Book in Central Asia 14th–16th Centuries*, ed. Basil Gray (Boulder, CO, 1979), pl. III.
 63. Others, particularly popular with well-to-do collectors, use poems in praise of the Arabic horse by pre-Islamic or early Islamic poets such as Imru'l-Qays or Ibn al-Mu'tazz, including an oil and watercolor trilogy done in 1980 and a print of frolicking horses done in 1993; see Porter and Barakat, *Mightier than the Sword*, no. 109.
 64. Reproduced in slightly different versions at <http://www.fenoon.com/portfolio/pages/0027p1.html> and Ali, *Modern Islamic Art*, pl. 5 bottom.
 65. *Perspective of the Bismillah* is reproduced at <http://www.fenoon.com/portfolio/pages/0027p1.html>.
 66. Reproduced on his website at <http://www.fenoon.com/portfolio/pages/0027p1.html>.
 67. In addition to the website, these two are reproduced in color in Ali, *Modern Islamic Art*, pls. 7 bottom and 6 top, respectively.
 68. Edinburgh, National Museums of Scotland, A1990.154.
 69. *EI*/2, 'al-Asmā' al-husnā'.
 70. Sheila S. Blair, 'An Amulet from Afsharid Iran,' *Journal of the Walters Art Gallery* 59 (2001): 85–102.
 71. Ali, *Modern Islamic Art*, 166–7.
 72. Biographies in Turner, *DoA*, 'Tanavoli, Parviz,' Shiva Balaghi and Lynn Gumpert, (eds), *Picturing Iran: Art, Society and Revolution* (London, 2002), 74–88.
 73. For brief overviews of the Saqqakhana movement, see Ehsan Yarshater, 'Contemporary Persian Painting,' in *Highlights of Persian Art*, ed. Richard Ettinghausen and Ehsan Yarshater (Boulder, CO, 1979), 362–77; Turner, *DoA*, 'Saqqakhana'. For a coherent and recent essay on Iranian modernism, including the Saqqakhana and its artists' use of calligraphy, see Feresteh Daftari, 'Another Modernism: An Iranian Perspective,' in *Picturing Iran: Art, Society and Revolution*, ed. Shiva Balaghi and Lynn Gumpert (London, 2002), 39–88.
 74. Brief biographies of Zenderoudi (b. 1937) are available in Turner, *DoA*, 'Zenderoudi, Hossein,' Ali, *Modern Islamic Art*, 212.
 75. Tanavoli himself is also a collector of these metal objects: see Parviz Tanavoli and John T. Wertime, *Locks from Iran: Pre-Islamic to Twentieth Century: The Parviz Tanavoli Collection* (Washington, DC, 1976); James Allan and Brian Gilmour, *Persian Steel: the Tanavoli Collection*, Oxford Studies in Islamic Art 16 (Oxford, 2000).
 76. His work was the subject of a retrospective exhibition held at the Museum of Contemporary Art in Tehran in 2003. See the review by Nina Cichocki in *International Institute for Asian Art* 30 (March 2003): 42.
 77. Quoted in *HAL* magazine, London, June/July 2000.
 78. Brief biography in Ali, *Modern Islamic Art*, 190.
 79. *Allah*; Ali, *Modern Islamic Art*, pl. 8 bottom.
 80. Etel Adnan, 'The Unfolding of an Artist's Book,' *Discourse: Berkeley Journal for Theoretical Studies in Media and Culture* 20, no. 1 & 2 (1998): 8–26, available on-line at: www.scc.rutgers.edu/however/v1_1_1999/eanotes.html.

81. Ali, *Modern Islamic Art*, 167–8.
82. Brief biography in Ali, *Modern Islamic Art*, 198. Examples of Mahdaoui's work are available on his personal website at <http://www.nja-mahdaoui.com>.
83. Color illustration in Ali, *Modern Islamic Art*, pl. 12, bottom.
84. Washington, DC, Smithsonian Institution, National Museum of African Art, 96–20–12; information available on the museum's webpage at <http://www.nmafa.si.edu/pubaccess/pages/advanfrm.htm>.
85. Ali, *Modern Islamic Art*, 171.
86. Biography in Maryline Lostia, 'Rachid Koraïchi: A Celestial Architecture,' in *Authentic/Ex-Centric, Conceptualism in Contemporary African Art* ed. Salah M. Hassan and Olu Oguibe (Ithaca, NY, 2001), 158–74, available on-line in *Universes in Universe: Contemporary Art from the Islamic World*, issue no. 1, at <http://www.universes-in-universe.de/islam/eng/2003/01/koraichi/index.html>. Many of the author's own thoughts are available in Rachid Koraïchi and Nourredine Saadi, *Koraïchi: Portrait de l'artiste à deux voix; entretien avec Nourredine Saadi* (Arles, 1998). To judge from photographs, the artist is left-handed, a distinct departure from Islamic tradition.
87. See the author's statement accompanying his *Golden Barque*, one of the series *Seven silk-screen banners* done in 1993–5 and exhibited at the 1997 Venice Biennale, and quoted in Hasan-Uddin Khan, *Modernities and Memories: Recent Works from the Islamic World* (New York, 1997), 42. The banners were also exhibited at the Barbican Centre in London in 1995.
88. There are actually twenty-nine letters, but the last, *lam-alif*, is a combination of two letters. The number seven is also significant to Koraïchi: see Koraïchi and Saadi, *Koraïchi*.

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